Civil Aviation Administration

ANNUAL REPORT

1998

Review by the Director General

It is the primary aim of the Civil Aviation Administration to maintain proper air safety. Systematic, responsible operations, in which anomalies are reported, form the starting point in all aviation professions and duties, and the overriding proviso for developments undertaken at airports and in air navigation services is safety. In 1998 we restructured our safety management system according to the general principles set out by the Eurocontrol organization. Similar developments are taking place in all the countries belonging to that organi- zation. Although Finland will not officially join the organization until 2000 we are already adopting Eurocontrol standards and operating principles in the same way as its more advanced members. Among other things, our overhauled safety management system ensures that all changes that we adopt are carefully tested for safety and that even minor aviation anomalies are reported, investigated and corrected and that the entire organization learns from them.

Safe expansion in 1998

The year 1998 was a good one in Finland for aviation safety. More or less the same number of anomalous air traffic situations were reported to the air safety authorities as previously — about 500, of which three were classified as hazardous incidents entailing risks. These incidents were not related to CAA activities. 29 of these 500 reports referred to the activities of the CAA, which was about 5 % of all reports and clearly fewer than in the previous year. Commercial aviation was involved in 16 of the cases reported to the CAA. The cases reported related to anomalous practices; two of them were classified as mildly hazardous incidents. On average, one or two air navigation incidents classified as hazardous incidents entailing certain risks have occurred each year, which corresponds to the figures for the more advanced aviation countries.

Demand trends in Finnish air traffic during the review year were very similar to those of the year before. The five percent growth in Gross Domestic Product produced a ten per cent increase in air traffic. As in the previous year, the

fastest growth occurred in domestic traffic, which continued to grow by a robust 13 %. This more generally illustrates domestic demand at the moment, too. Demand for overseas flights increased for the fifth successive year, by 9 %, reaching seven million flights or almost 1.4 flights for every inhabitant, which is one of the highest productivity figures in the whole of Europe. Of course, there are good geographical reasons for this. A structural change occurred in overseas traffic, away from charter flights to scheduled traffic.

Air traffic in the whole of Europe increased by 8 %, or slightly more slowly than in Finland. However, in relation to economic growth, the trend in Finnish air transport can be regarded as actually slower than in the rest of Europe. This continues to suggest that in Finland, a land of long distances, separated by the sea and highly suited to air transport, aviation has an excellent chance of developing as an industry in the future, too.

The financial result improves

Expanded commercial operations in conjunction with the beneficial trend in air traffic raised the turnover of the CAA by 11 %. The CAA's financial profit improved, we were able to reduce airport charges and many discretionary renovations and improvements in service, which themselves will herald economies in future years,

were carried out. As a result of the operational improvements, the standard of service at Helsinki-Vantaa airport was rated in user surveys as one of the best in Europe for the second year running.

The financial result for the CAA after deductions and incidental items came out FIM 96 million in profit. This can be considered good for this industry. The result exceeded by FIM 50 million the long term goal of a four percent return on invested capital, as set by the Ministry of Transport for self-financing national institutions managing infrastructural operations. In fact a certain acceleration is evident in the 1998 figures ahead of 1999, when the abolition of tax-free trading for transport within the EU will cause a clear dent in airport earnings. In fact, under the CAA's operating policy it is not necessary in a country like Finland to strive for more than a moderate return on capital for maintaining basic social infrastructure. It is right that in a situation of stiff international competition the productivity gains resulting from the growth in demand and improvements in operations be distributed as reduced charges to airlines operating within and from Finland. For geographical reasons, a large proportion of Finnish routes can be regarded as being a basic service which creates the prerequisites for regional production and service activities and reinforces them. The CAA works, therefore, to make sure that the airport network and air navigation services support good, low-cost air travel.

Low fees are the goal...

Thanks to the positive trend in demand, the CAA was able to reduce the charges for its services — airport and route operation fees — by an average of 2 %. We made a cost-based structural change in pricing in such a way that charges for domestic traffic were raised by about 3 % and those for overseas traffic reduced by about 4 %. However, airport fees for domestic flights are still cheaper than for overseas flights. A decision by the EU Commission ruled that the place of origin of the flight should not result in differences in landing charges at Finnish airports. The CAA takes the view that airport fees too, may be levied according to commercial principles — in accordance with national laws — especially since such fees in Finland for international traffic too are among the lowest in Europe. The CAA will appeal against the Commission's decision.

...and no delays

Punctuality of air traffic is the most important gauge of airport and air navigation service standards. Weather permitting, the CAA strives to achieve delays to no more than 2 % of flights using Helsinki-Vantaa airport as a result of its own activities, whilst no more than 1 % of flights should be delayed by more than 15 minutes. The corresponding goal for other airports in Finland is less than 0.5 %. We did not achieve this target in 1998; instead the proportion of delayed flights increased considerably. Even so, Helsinki-Vantaa was one of the most punctual airports in

Europe for its size.

Almost 10 % of flights from our main airport were delayed for air traffic control reasons. More than half of these were the result of airspace usage regulations beyond Finland's borders, the rest resulted from the CAA itself. Half of the CAA's delays — to 2.5 % of flights — resulted from regulatory action by area flight control and half from regulatory action by Helsinki-Vantaa airport when its capacity was exceeded momentarily. Not much can be done about the 2.5 % of delays caused by the airport until the third runway at Helsinki-Vantaa comes into operation in 2002. Rather, they are likely to increase with the growth in traffic. However, it is possible to dramatically reduce the need for regulatory action by Finnish area air traffic control by better timetable planning and reorganizing the airspace. The proportion of delays caused by regulatory actions at European level is increasing all the time and is almost at three times the rate experienced in Finland. One country alone cannot do very much about these delays, but pan-European cooperation on air navigation is striving to increase air traffic control capacity and reduce delays. It's a challenging task as traffic burgeons.

Overcast for 1999

Increased demand, liberal aviation policies and improved finances for the airlines, along with greater competition, have meant that the number of operations in commercial traffic increased faster than the numberg of passengers for the second year running — by as much as 13 %. This kind of expansion requires the rapid addition of runway capacity at Helsinki-Vantaa. The present capacity of the cross-runway system — 43 operations an hour — is already restricting rush-hour traffic and also causes delays in bad weather. When the new runway is completed in 2002 it will raise the airport's capacity to 75 operations an hour.

The outlook for air transport and the airports for 1999 is overshadowed by the five-week air traffic controllers' strike, which occurred at the beginning of the year. A significant proportion of the financial impetus from 1998 dwindles from the effects of the strike and the subsequent pay rise, which exceeded the prevailing norm. However, the resulting four year agreement does open up opportunities for improving air navigation productivity in a constructive spirit.

Even the most difficult strike is only a passing cloud, and sustainable development in air traffic, as in other consequential demand, depends on the general trend in the national economy. The natural growth in air traffic at the beginning of the year was running at about 5 %, of which the trouble early in the year nipped off two percentage points. Even this rate of growth should be sufficient to keep the CAA's finances for 1999 relatively stable, though they will be clearly weaker than in 1998.

Mikko Talvitie
Director General

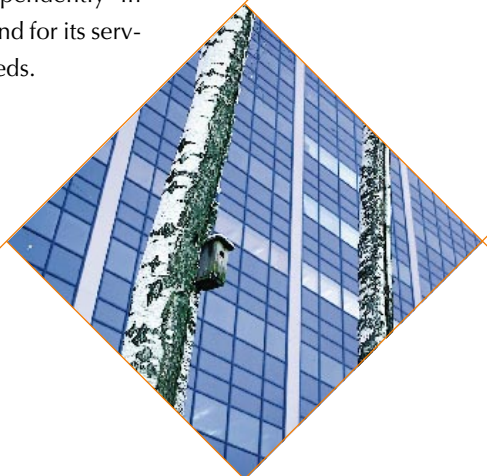
The Civil Aviation Administration in brief

The Civil Aviation Administration provides it customers — the air traffic operators and passengers — with airport and air navigation services which are safe, of an internationally high standard and competitive, and develops businesses in support of these services.

The Civil Aviation Administration maintains and develops the Finnish airport network and air navigation system as a single, coherent entity. The network consists of 25 airports, of which 21 are involved in the regular air traffic system.

The Civil Aviation Administration acts as the official Finnish aviation authority and is responsible for flight safety operations in this country. It is also responsible for Finnish aviation policy in conjunction with the Ministry of Transport and the Ministry of Foreign Affairs.

The Civil Aviation Administration is a government enterprise funded by its users, its general operational and profit targets being set by the Council of State. It determines its activities and its spending on investments independently in accordance with the demand for its services and its customers' needs.



Highlights of 1998

	1998 1000 FIM	1997 1000 FIM	change %
Turnover	**1 080 677**	**971 353**	**11 %**
Operating costs	**745 726**	**665 785**	**12 %**
Operating profit	**340 677**	**310 877**	**10 %**
Result for the accounting period	**95 588**	**73 272**	**30 %**
Investments, total	**463 083**	**251 713**	**84 %**
Land areas	2 420	9 830	-75 %
Machinery and equipment	109 662	98 828	11 %
Airports	160 633	55 555	189 %
Buildings	183 327	79 935	129 %
Other investments	7 041	7 565	-7 %
	number	**number**	
Passenger movements, total	**9 965 443**	**9 066 566**	**10 %**
Domestic traffic (dep+transfer)	2 972 758	2 640 042	13 %
International scheduled traffic (dep+arr+transfer)	5 652 995	4 935 452	15 %
International charter traffic	1 339 690	1 491 072	-10 %
International, total	6 992 685	6 426 524	9 %
Other traffic	13 488	19 993	-34 %
Flights, total	**357 036**	**331 418**	**8 %**
Domestic traffic	78 253	68 913	14 %
International traffic (scheduled + charter)	104 118	92 550	12 %
Overflights	17 828	14 132	26 %
International flights, total	121 946	106 682	14 %
Other civil flights	109 872	106 511	3 %
Military flights	46 965	49 312	-5 %
Accum. staff working years in 1998	**1 722**	**1 670**	**3 %**
Airports	1 260	1 212	4 %
Air navigation services centers	123	119	3 %
Head office	228	221	3 %
Internal service units	111	118	-6 %

The Civil Aviation Administration in 1998

10 million flights

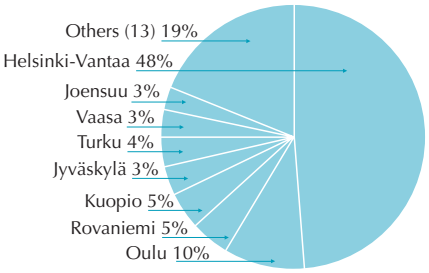
Ten million flights were made in Finland in 1998 which was 10 per cent more than in 1997.
Almost 13 million passengers passed through CAA airports, meaning an increase of 11 per cent on the previous year. The biggest increases in traffic occurred at Lappeenranta (43,8 %), Kittilä (24,5 %), Jyväskylä(14,2 %) and Kruunupyy (13,2 %) airports.

The volume of international passenger flights grew by 9 per cent, to 7 million. The number of passengers on international scheduled flights increased by 15 per cent, to 5.7 million. However, the number of passengers on charter flights declined by 10 per cent to 1.3 million.

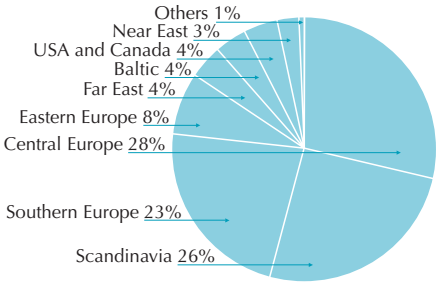
There were 3 million passengers on domestic flights, an increase of 13 percent over the previous year.

Helsinki-Vantaa airport once again achieved a new passenger record in 1998, when 9.4 million passengers passed through this, the country's main airport, an increase of 11 per cent on the year before.

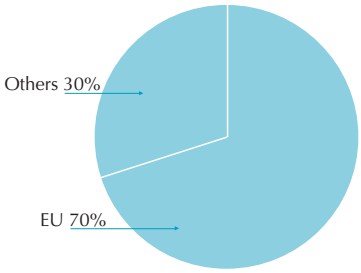
DOMESTIC TRAFFIC
DESTINATIONS 1998



INTERNATIONAL TRAFFIC
DESTINATIONS 1998



INTERNATIONAL TRAFFIC
DESTINATIONS 1998



Systematic safety

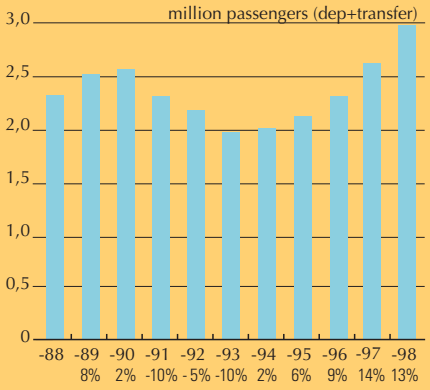
In recent years, the CAA has been actively developing a comprehensive safety management system to cover its entire organization. By safety management system we mean a systematic leadership system by which the CAA is able to ensure the safety of its services and to anticipate and prevent any risks that might occur. Good safety management means careful planning of activities and information gathering, regular assessment of events, clear allocation of responsibilities as regards decisions taken and steps carried out, and appropriate follow-up.

During 1998 the CAA paid special attention to the systematic documentation of operating principles as they related to occupational responsibilities, airports, air navigation centres and service units. At the end of the year the CAA prepared a safety management instruction manual setting out the various responsibilities relating to safety management and the principles for dealing with irregularities.

It is essential for proper safety management that the entire staff be committed to the demands of safety, that there are anticipatory and preventative procedures and active reporting. The role of the administration in safety management, as in other management functions, is to set goals, determine strategy, define measuring standards, make reports and maintain systematic monitoring and supervision.

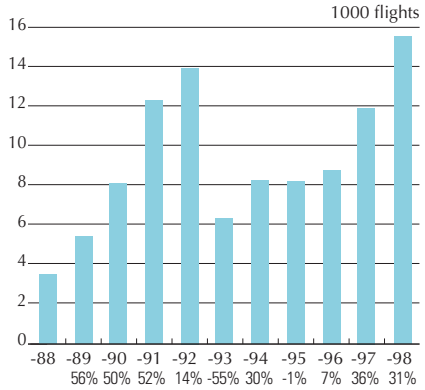
The functioning of the safety management system is constantly being reevaluated and developed by the CAA as a normal part of the organization. A supportive culture of safety means, among other things, that investigations into irregularities do not seek to identify guilty parties, merely to pinpoint the causes and to correct them.

DOMESTIC SCHEDULED TRAFFIC 1988-1998

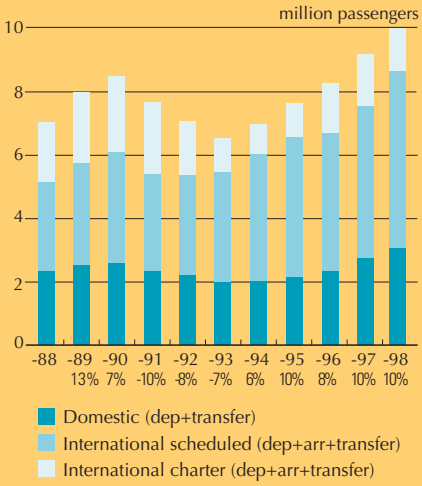


OVERFLIGHTS 1988–1998

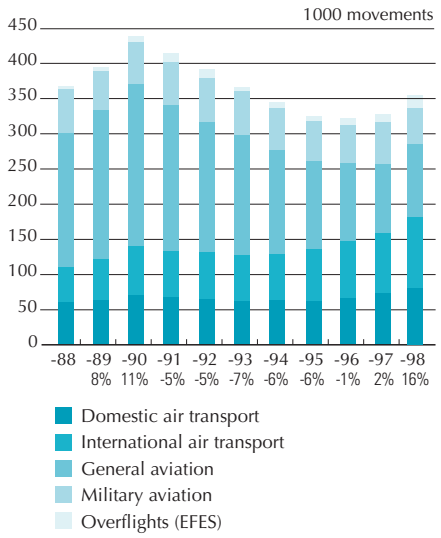
TAMPERE FIR



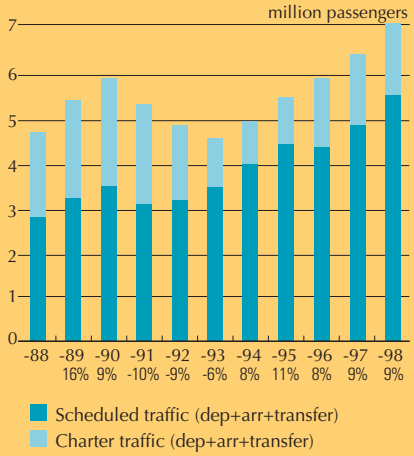
AIR TRANSPORT 1988–1998



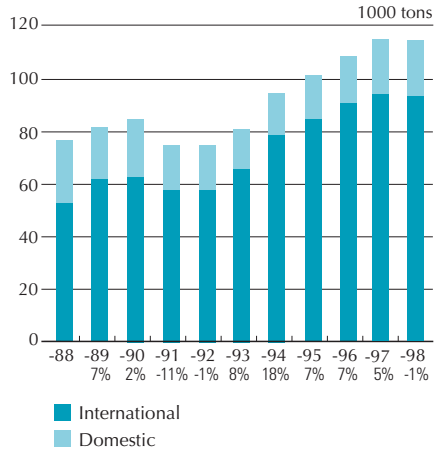
MOVEMENTS 1988–1998



INTERNATIONAL TRAFFIC 1988–1998



FREIGHT TRAFFIC 1988–1998



Airports 1998

	PASSENGERS		LANDINGS		
	Domestic	International	Air transport	Military aviation	Others
Helsinki-Vantaa	2 900 131	6 454 751	77 708	1 247	4 478
Oulu	583 609	73 727	6 534	888	4 005
Turku	212 741	162 007	9 009	614	9 650
Rovaniemi	286 561	41 104	2 900	6 599	3 128
Vaasa	207 257	94 600	5 723	643	3 304
Kuopio	271 068	3 784	3 435	6 930	2 427
Jyväskylä	205 991	16 915	3 927	3 615	5 584
Tampere-Pirkkala	113 170	81 549	4 712	7 141	7 871
Joensuu	167 171	7 083	2 119	64	2 734
Kruunupyy	123 107	5 800	2 236	798	1 756
Kittilä	115 651	12 247	955	547	475
Kajaani	120 453	483	1 178	133	1 017
Mariehamn	109 940	8 384	2 898	0	1 434
Ivalo	114 113	2 924	847	210	423
Kemi-Tornio	110 112	381	1 339	33	1 643
Kuusamo	90 776	52	753	27	211
Pori	69 875	20 743	2 635	99	13 230
Lappeenranta	67 391	5 875	3 074	74	1 999
Savonlinna	55 989	2 269	1 500	10	231
Varkaus	42 229	236	1 538	5	436
Enontekiö	2 960	1 816	123	4	19
Helsinki-Malmi	1 224	247	49	93	34 804
Kauhava	220	6	51	13 240	374
Halli	72	7	14	2 734	321
Utti	8	0	6	1 217	751

Air Navigation Service Centres

	IFR-flights	Overflights
South Finland (Tampere)	228 892	15 555
North Finland (Rovaniemi)	36 467	2 273

Avanti!

Flautist Heljä Räty and violinists Kati Rantamäki, Jukka Rantamäki and Sakari Laukola are hurrying to their next set of concerts, urged on by orchestra organizer Antti Pylkkänen. The musicians actually do take their sensitive instruments with them onto the plane, the cellos even get their own seats, but they are rarely in such a hurry that they have to start tuning up at the airport! These members of the Avanti! orchestra usually fly to their concert venue the day before the performance and return the day after.

Of course, not all the band gear gets to travel in the cabin: “Avanti! plays a lot of modern Finnish music, so we take percussion instruments, double bass, double bassoon and all kinds of special equipment with us. We pack it all into huge flight cases so that it can travel in the cargo hold,” Antti Pylkkänen explains.

Avanti! includes freelance musicians and players from various orchestras in the Helsinki area, and makes between five and ten trips abroad a year. The size of the orchestra varies, with no more than 15 musicians going on tour. In 1998 they played Uumaja, Berlin, Warsaw, Rouen and Paris, among other places. Their tight schedule seldom allows them much time, least of all for airports. “Fast throughput is in fact the main thing at any airport and they should invest in that. In this respect, Helsinki-Vantaa and Copenhagen are good — no crowds, short change-overs and you can move quickly, “ says Jukka Rantamäki.

Whenever there is a bit of spare time for shopping, the instruments can cause bit of a problem. “You can’t go round the tax-free with great big instrument cases,” Heljä Räty points out. “It would be good if there were storage places at the airports where you could leave things for a short time.” It would also be a good idea to have a 'concentration room,' at the airport, say Avanti!. The conductor, especially, would love it. ■

Ground transport and passenger services, commercial services

Helsinki-Vantaa airport improvements continue

The number of passengers using Helsinki-Vantaa airport reached the record number of 9.4 million in 1998. What will have to be done to the airport if passenger demand continues to multiply? The CAA has been pondering this question for a long time, the latest assessment of its development being undertaken by a special committee during the year under review.

"The development of Helsinki-Vantaa airport over the long term means, in a nutshell, that as the traffic grows we must be prepared in a purposeful way to build extra capacity, for the passengers, for the aircraft and for the operations of the airport themselves," says Mr Lauri Vänskä, Deputy Director General of the CAA.

Passenger terminal and other basic functions of the Helsinki-Vantaa airport are currently situated beside the intersection of the two runways. But as the present trend continues the terminal area will become congested soon after the turn of the millennium and it will become necessary to expand elsewhere. Building of the third runway is now in progress, and this will give the CAA an excellent opportunity to make use of the land between the parallel runways. Terminal activities will overflow into this area in phases, as dictated by the demands of traffic growth.

A satellite terminal system will be developed for the present terminal area and the new runway site. In the final stages the terminal will contain the present main terminal, which will remain as the primary centre for the airport's terminal activities, handling all the ground transport functions as well as passenger and baggage check-in. The area between the runways will house the satellite terminals and waiting rooms and apron areas. An efficient transport system running under the main runways will link the two areas.

The capacity of the satellite system will be between 15 and 20 million passengers a year. If even that proves insufficient it will be possible to build a new independent terminal and another satellite arrangement at the southwestern end of the new site, raising the capacity of Helsinki-Vantaa airport to 25-30 million passengers a year.

Building fast at the central terminal

The second phase of construction of the Helsinki-Vantaa central terminal includes new passenger departure and arrival halls, office and social facilities, commercial facilities and a connecting passage to the domestic terminal. During the year the second phase proceeded on schedule. The core phase of construction was completed in September, to be followed by the interior work. The aim is to have the building ready by the end of June 1999, with the terminal becoming operational in the autumn. When it is finished the whole international terminal will be able to serve about 8 million passengers a year.

In functional and architectural terms, the most important area of the central terminal will be the new triangular departure hall, which will be covered with a gently curving triangular space truss. There will be 32 check-in counters in the departure hall, with the baggage reclaim hall situated underneath. In addition to a new luggage handling system, the new terminal will feature equipment allowing 100 per cent baggage security inspection. This second phase will cost FIM 370 million.

The front spans and levels of the overseas terminal are being renovated and repaired at the same time as the second-phase of construction at the central terminal, in a project due for completion in June 1999. The work will cost FIM 46 million.

Helsinki-Vantaa will stay in the forefront

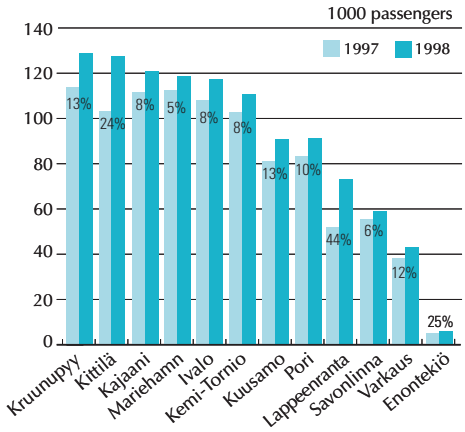
Helsinki-Vantaa airport and services have been enormously improved in recent years so that it has been able to face the ever-tightening international competition between airports. This has been achieved through a systematic programme of construction, while continual staff training has promoted a strong service mentality. We have striven to increase the popularity of Helsinki-Vantaa airport particularly as an international "gateway" for transit passengers. The airport has been successful in in international passenger surreys in recent years, despite the constant building work and temporary arrangements.

"We use research to help us come up with ever-better services," says Pirjo Lähteelä, General Manager, Terminal and Passenger Services at Helsinki-Vantaa airport. "For example, we envisage our service as a chain along which the passengers must be able to pass as smoothly as possible — right from the nearby Helsinki ring road to the aeroplane seat."

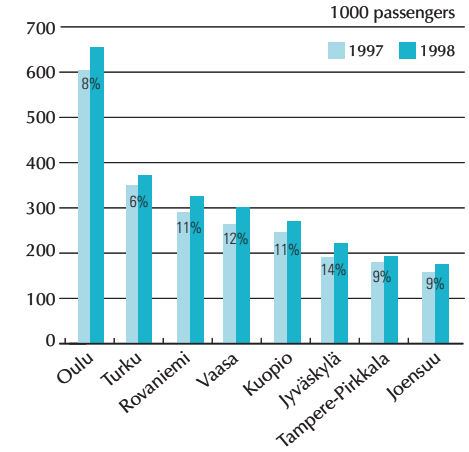
One of the main priorities as far as airport services were concerned in 1998 was to ensure that they remained at a high standard throughout the period of construction at the central terminal. We succeeded in this very well, thanks to close cooperation between the builders and the airport — so well, in fact, that Helsinki-Vantaa, which had been voted Europe's number one airport in 1997, received an excellent citation in the review period too in a regular survey carried out by the international air transport association, IATA. Passengers particularly appreciated the ease of passage through the airport, the effortless onward connexions, the pleasant waiting areas, clear information signs, cleanliness and the feeling of security. They also felt that customer service, both from the airport staff and the businesses operating there, were of the very highest standard.

Discrete passenger services at Helsinki-Vantaa have been improved, especially taxi services, through the adoption of a so-called "taxi captain" system, whereby an official appears in front of both the domestic and international terminals during peak periods to ensure that taxis are available and to assist passengers and their luggage to the car, among other duties. The arrangement has worked well so far.

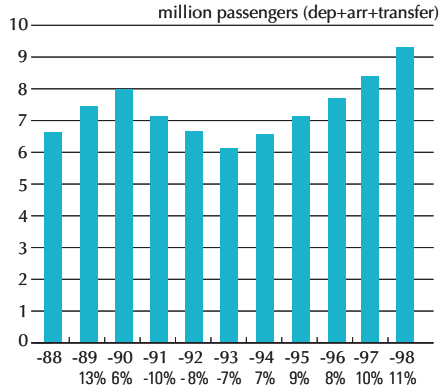
PASSENGER TRAFFIC
AT AIRPORTS 1997 - 1998



PASSENGER TRAFFIC
AT AIRPORTS 1997 - 1998



PASSENGER TRAFFIC AT HELSINKI-
VANTAA AIRPORT 1988–1998



Aviapolis will attract businesses to the main airport

In recent years Vantaa has raised its profile as an airport town. It has begun to benefit from the fact that the country's main international airport lies within its area, as well as from the excellent connexions provided by other forms of transport, and is putting this to use in its commercial policy. In conjunction with the CAA, Vantaa has been planning a business park, to be called Aviapolis, immediately south of the airport. It is proposed that planning permission be granted for 400,000 square metres of floor space.

The purpose of Aviapolis is to create an area offering a comprehensive range of activities and services in an attractive, high quality urban environment. The area, which will flank the main road to the airport, will be occupied by offices and attendant services and possibly hotels. It will also link up with areas for production facilities and storage depots. Marketing of the area will initially be aimed at high technology companies and firms working in the international arena — in general those firms which appreciate smooth transport connexions and can benefit from the opportunities air transport can offer. Careful attention will also be paid to the planning of parks and green areas.

Land use planning at Aviopolis must take account of the basic functions of the airport in such a way that enough space is left available for expansion for terminals or other airport needs. The smooth functioning of the airport takes prime consideration in the planning of Aviapolis. The area will be planned in collaboration with the companies moving in there, and the first building projects can begin at the end of 2000.

Always packed and ready

For Eeva Lilja, a document management expert for the Leiras drugs company, 1998 was one long year in the air, as she left Turku for Berlin a couple of times a month for her job. An important project still keeps her flying back and forth, not just to Berlin but to the USA as well.

Eeva says she feels lucky she bought her flat a while ago "on the right side of Turku," meaning fairly close to the airport, which she can reach by taxi in about 15 minutes. She flies to Berlin via Helsinki or Stockholm. If she has to be at work in Germany early in the morning she will set off straight from her office the previous day.

"I always try to get to the airport in time, 35 minutes before takeoff. Although the airport renovations at the moment do make it more difficult to get around, I welcome the expansion. I had hoped they would put in a few access bridges to the planes as well, but apparently they are not going to yet. It is pretty unpleasant getting out to the plane in the rain or sleet — you always have to take your umbrella with you when you travel."

Eeva says changing planes at Helsinki-Vantaa has always gone smoothly even when the Turku plane has been late. If she ever has to wait any length of time she will happily use the lounge services offered by the airline, whether it's at Finnish or foreign airport. "It's more peaceful to sit and read there and they always offer you something to nibble, or drink."


3-4


TOKYO

Busy Kittilä airport

Kittilä is a true tourist airport, with as many as 96 % of its passengers being tourists, lured there by the popular Levi, Ylläs, Olos and Pallas tourist resorts. In 1998 128,000 passengers passed through Kittilä airport, an increase of 24% over the previous year. The development of Lappish tourism and the meteoric increase in passenger numbers at Kittilä have led to the airport's expansion three times during the 1990s. The expansion of the passenger terminal in February 1998 added more space particularly to the international departures waiting room and cafe. The total cost of the scheme, which was funded by a Labour Ministry employment scheme amounted to FIM 4.2 million.

More space at Kuusamo airport

Building work at Kuusamo airport did not finish with the new runway, completed in October 1997 — the second expansion of the airport building began in May 1998 and was completed in December of that year. More space was given over to both arriving and departing passengers and baggage handling was improved with the introduction of new conveyor belts. The project was carried out under the "three-pillar" principle of funding by the CAA, the Kuusamo local authority and the Ministry of Labour, at a cost of FIM 8.5 million. The number of passengers using this airport in 1998 was 91,000.

Urgent expansion at Lappeenranta

The year 1998 was a busy one for Lappeenranta airport; March saw the introduction of regular traffic to St. Petersburg, and the runway extension was completed in September, enabling the use of bigger aircraft in charter traffic. The renovation resulted in the urgent need for more space at the airport, both for passengers and passport and customs officials. The decision to provide the extra space was taken in May, the work started in August and the new facilities were already in service in October. The estimated cost of the entire project was FIM 2.7 million.

Expansion and new look for Turku

In terms of passenger numbers, Turku airport is the second busiest in Finland for international scheduled traffic. The increase in overseas passengers alone has made it necessary to carry out expansion and alteration work on the more than 20 year old airport building. This will make for clearer traffic streams, bring the public areas up to date and add to both passenger and service facilities. The work began in May 1998 and the two-phase project is estimated to be completed in June 1999.

Finland's most northern control tower

Expansion and renovation work was begun at Finland's most northerly airport, Ivalo, in September 1998, on the airport and air navigation buildings. A new, higher control tower is being built next to the air navigation building. The airport building work will provide extra space for luggage handling facilities and in particular provide more room for arriving passengers. This three-way funded project will be completed in July 1999 in time for the EU conferences in Inari. The CAA shares responsibility for the project with the Inari local authority and the Ministry of Labour.

Kruunupyy, airport of the year, 1998

Kruunupyy airport, which lies between Kokkola and Pietarsaari in Central Botnia, scored a big hit with the passengers when it was chosen as Airport of the Year. Its passenger terminal had been expanded and renovated the year before, improving service in a way that did not go unnoticed with the passengers. The CAA and Finnair, drawing on feedback from the public, selected it as the best airport. Among other attributes, people were asked to assess overall appearance, tidiness, parking arrangements, cafe and restaurant services and staff attitude.

"It is our goal to make things more pleasant for the passengers," says Airport Manager Tapani Krooks. We are now able to offer our waiting passengers conference facilities and a work room."

The number of passengers using Kruunupyy airport has increased more than the average in recent years. It handled 129,000 in 1998, representing a 13 % growth over the previous year.

New address for head office

A thirteen storey office building, owned by the CAA and Finnair, was completed on schedule at Helsinki-Vantaa airport at the turn of 1998/99, so that the self-financing operations of the CAA were able to move into the new address, Lentäjäntie 3, in February 1999.

The new property company

Lentoasemakiinteistöt Oyj is a new subsidiary of the CAA, set up to build, buy and rent office space for outside enterprises whose work depends on air transport. The purpose of the new company is to find the necessary space for firms working at the airports, particularly Helsinki-Vantaa, through a central, coordinated office.

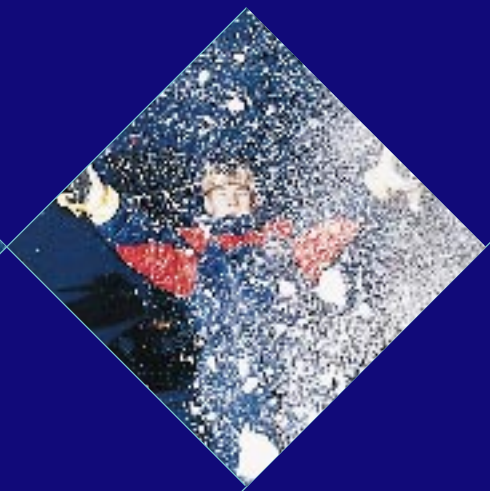
"We love the snow"

Kittilä airport was a pleasant surprise for the British Hathway family, who had come to spend their holidays in Levi. "The airport is a lot bigger and more modern than we expected," comments 40 year old Michael. "Very tidy and light," chimes in wife Pauline. Sons Mike, 11, and John-Paul, 8, did pine for a television and some more shops at the airport, but in the end what fascinated them most was the gleaming white snow outside the airport.

"John-Paul does downhill skiing, Mike loves sledging and we parents love being out in the open air," explains Mike of the family's holiday schedule. "We took a snowmobile safari, went on a reindeer drive and visited the place where they keep the dogs. The boys fell head over heels in love with the little husky puppies.

As first-time visitors to Finland, the Hathways are seasoned travellers both in their own country and abroad. They take a long trip at least once, twice or sometimes even three times a year. They usually fly to the country they are visiting, hire a car at the airport and tour the sights at their own pace, enjoying the freedom. "We travel a lot because we want to open our children's minds to the world and its people. We believe that the things they see and experience on their travels will help them to get through life better," say Michael and Pauline. "Yeah, you learn about culture when you're travelling," adds John-Paul.

Living on the outskirts of London, the family often travel to Heathrow to watch the aeroplanes and enjoy the hustle and bustle of the airport. "When I am travelling on business I look for a quiet airport bar where I can work with my laptop computer and have a beer," says Michael. "When you are travelling with the whole family it would be good if there were something at the airport for the kids to do." ■



Apron and manoeuvering area services

Finland's biggest civil engineering project

The third runway at Helsinki-Vantaa airport is the biggest civil engineering project currently underway in Finland. The work is being carried out as a separate subcontract at an estimated cost of FIM 633 million. There has been much interest from contractors in the work and competition has been stiff.

Construction has proceeded on schedule and to budget. Peat removal and vertical drainage of the clay deposits has been carried out and now the earth moving, rock quarrying and crushing work is in progress. The overall timetable depends to a large extent on how long it takes the area of clay deposits to settle, and this is being expedited by vertical drainage and the use of embankments**.** The runway will be completed by the end of 2002.

Quick, accurate information from the handbook

Both clarity and quality of operations will improve at airports with the adoption of the operational handbook in the spring of 1999. An operating manual was prepared as a pilot project in 1998 at Tampere-Pirkkala airport and this was used as a model for similar publications at all the other 24 CAA airports.

These operating manuals form a vital part of the CAA's safety and quality system. They contain all the operating instructions and regulations (or specific references to them) concerning maintenance and functions of airports as might affect air safety. The handbook, obligatory under Flight Safety Authority aviation regulations, functions simultaneously as the primary instruction manual for the airports, as a presentation of "house wishes," as a directory, reference manual and as an *aide memoire* and check-list. It is intended that sections referring to airport administration and air navigation will eventually be added to the handbook.

Increased security

A procedure of internal reporting and feedback forms a fundamental part of the CAA's safety management system. This procedure is designed to bring every irregularity, observation or area which needs to be improved and which might affect the safety of air traffic, to the attention of the relevant personnel, for their further consideration. This anomalies observation and reporting system for airport personnel (known as PHI) was introduced at all CAA airports in December 1998. It also extends to airport maintenance and apron services, fire and rescue services and relevant equipment. A similar reporting and monitoring system for air navigation personnel was introduced in 1997.

Air navigation services

Documented safety management

The Civil Aviation Administration's air navigation safety management manual was completed at the end of 1998. It contains the director general's regulations concerning safety management at head offices, airports, air navigation centres and service units. The publication forms a core to which will be added all the essential instructions and regulations relating to the field of air navigation.

"The safety control system is the framework for personnel involved in systematic management and other staff for assessing and avoiding hazardous situations," says Jussi Myllärniemi, Director of the Air Navigation Services Department. "In practice the system bundles together various working methods which have already been in use for a long time but which have not previously been documented between the same covers."

The airports began working to the system at the beginning 1999. Safety and quality committees from the airports meet regularly to deal with all questions relating to airport safety. They decide on measures to be taken and disseminate information about them.

British investigators: Finnish air navigation is safe

A number of air navigation irregularities at the end of 1997 aroused so much publicity in Finland that the Ministry of Transport and Communications decided to commission an outside assessment of the Finnish air navigation system. The job was given to an expert team of aviation officials from Great Britain in March 1998.

The inspection team visited Finland twice and interviewed CAA staff, representatives from the air force and Finnair, among others, and went through documents supplied by the Civil Aviation Administration. Their auditors' report was published in September.

The most important observation of the report was that the CAA's air navigation operations fulfilled international quality requirements and that its services were of a high standard. It was noted as a positive observation that Civil Aviation Ad

ministration staff are deeply committed to air safety. In addition, it was stated that there was sufficient administrative and operational distance and independence between the air safety administration and other branches of the CAA.

It was the opinion of the expert team that air traffic control staff are professionally skilled and well trained. Air traffic control methods are in the main appropriate, but that operating models for anomalous situations, cooperation agreements and the regulatory system for air transport should be improved. Attention was drawn to air navigation operations documents and documentation and updating of instructions. Greater clarity was also desired regarding management models and staff responsibilities as well as the use and exploitation of airspace models.

The Civil Aviation Administration thoroughly studied all the recommendations in the report. They will be adopted in conformity with the improvement measures currently being undertaken by the CAA. The CAA is always ready to alter its working methods if the changes lead to a better and safer air navigation service.

Delays caused by air navigation have increased both in Europe and Finland in recent years. In practice, air traffic control delays are caused by the regulation of traffic flows and congestion of airport approach and aerodrome control. In addition to ensuring safety, the purpose of air traffic regulation is to adjust traffic volumes to the capacity available to the various countries. This regulation is managed centrally in Europe by Eurocontrol.

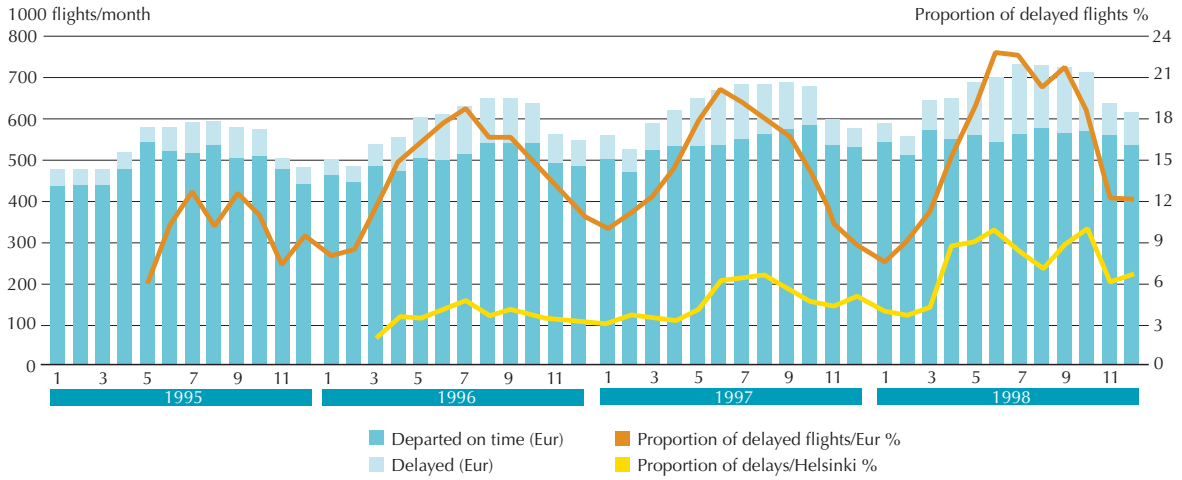
About 17 % of flights in Europe were delayed because of regulatory measures in 1998; the corresponding figure for Finland was 7 %. In previous years these regulatory delays were caused mainly by situations occurring outside Finland, but in the two years of 1997 and 1998 Finland also had to some extent impose regulatory restrictions. The reason has been the enormous growth in traffic and its concentration within certain hours of the day. About a quarter of the regulatory delays caused in Finland in 1998 (concerning about 2 % of flights) resulted from regulatory action taken by the Southern Finland area control centre. This means that the goal set by the CAA — that not more than 1 % of departing flights should be delayed by more than 15 minutes as a result of CAA action — was not achieved.

We are aware in Finland of the measures necessary to reduce the delays and we have set the goal for 1999 as a return to the 1997 level. The primary objective is — weather permitting — a situation in which Finland does not need to regulate air traffic at all.

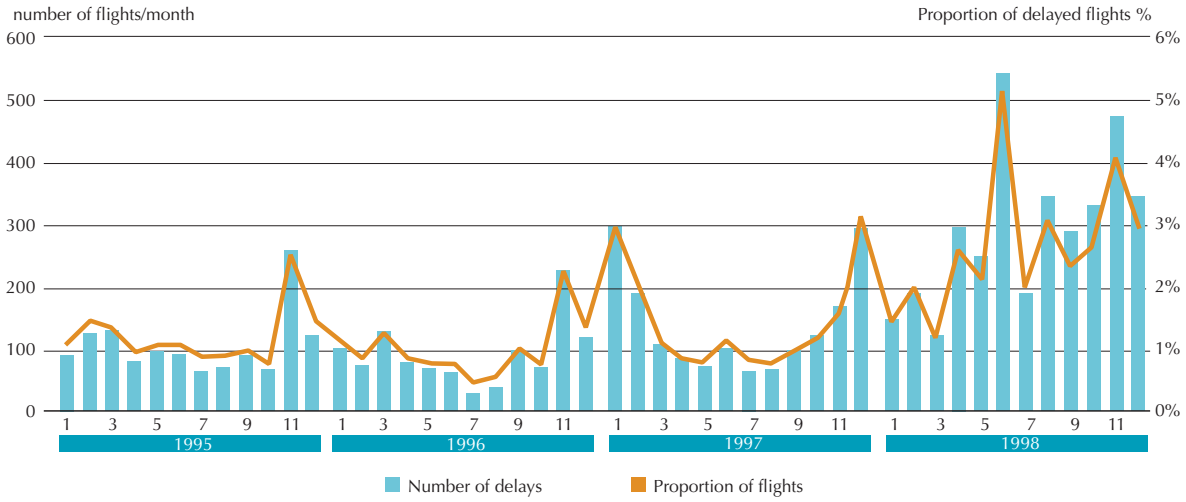
Delays caused by local, approach and aerodrome control have also increased somewhat. These have traditionally been in the order of 1 % of departing and arriving aircraft at Helsinki-Vantaa airport. They also doubled in number in 1998. The reason for this has been the increase in peak morning and evening traffic to close to its present maximum capacity (43 takeoffs and departures an hour) at which point even tiny irregularities can cause delays at local level.

The CAA is constantly developing its delay analysis. Because the situation at Helsinki-Vantaa airport can be improved only with the construction of the third runway, the CAA is doing everything it can to get it ready as soon as possible.

DELAYS CAUSED BY ROUTE REGULATIONS IN EUROPE AND HELSINKI, 1995 TO 1998



CAA DEPENDENT DELAYS AND PROPORTION OF FLIGHTS, 1995 TO 1998



Safety comes from cooperation between ATC and the pilots

Not a single incident classified as hazardous resulted from Air Traffic Control actions during 1998. A total of 14 anomalous situation reports concerning scheduled traffic and resulting from air navigation operations were sent to the flight safety authority; one of them was a mildly hazardous situation. 44 reports of irregularities or hazardous situations in which the pilots' actions deviated from approved practice were made. Of these, 5 were classified as mildly hazardous situations.

Aviation safety comes about through close cooperation between the air traffic controllers and the pilots, and Air Traffic Control has to be able to rely on the pilots acting according to the instructions it gives them. On the other hand it is also the duty of Air Traffic Control to monitor on the basis of radar information that this actually happens. An important element in this cooperation is clear and strictly regulated radio telephone communication. Disciplined radio telephone communications is maintained through constant refresher courses.

Airspace model for the new millennium

The volume of air traffic over southern Finland has grown rapidly in recent years and this growth is expected to continue. This primarily affects the South Finland Air Navigation Services Centre and Air Traffic Control at Helsinki-Vantaa airport. The CAA currently has two major development projects underway, the third runway at Helsinki-Vantaa and the FATMI (Finnish Air Traffic Management Integration) project designed to ensure that operational prerequisites and traffic control capacity are maintained in the near future. In order to be able to take advantage of the improvements we shall have to overhaul the operational model and control methods for Southern Finland.

The Airspace 2000+ project was started in autumn 1997, with intensive planning and implementation work being carried out during 1998, particularly for the development of Helsinki-Vantaa airspace and its approach and take-off flight paths. We have been involved in cooperation with United States aviation authorities, among others, to improve air traffic control procedures. The management of traffic flows in the new airspace model will be made clearer by, for example, reducing the number of feeder points for incoming traffic to Helsinki-Vantaa from the current 18 to four. Area flight control will organize incoming traffic into a queue with three feeder points and feed traffic into the approach area as and when the runways are able to receive it. The new model will ease control of aircraft under the responsibility of Helsinki-Vantaa approach control and reduce the burden on the radar controller.

In designing the new airspace model we have primarily striven to maximize safety. At the same time we have wanted to maintain as economical and flexible operations as possible for the airlines using the airspace over southern Finland. These changes will come into force during 1999.

Alongside the airspace use reforms, the CAA has been preparing for the phased introduction of the FATMI flight control system. The first phase of equipment deliveries has already been received by Helsinki-Vantaa approach control and aerodrome control and Rovaniemi's aerodrome, approach and area controls. Training of air traffic controllers' instructors began on the Tampere area control simulator in autumn 1998.

Closer cooperation in Europe

The CAA has decided to apply for membership of the Eurocontrol air navigation organization. Eurocontrol (European Organization for the Safety of Air Navigation) was founded in 1960 for the purpose of promoting conformity in air navigation matters among member countries. Finland's membership will become valid from the beginning of 2000 and will ensure the CAA better opportunities for participating in the Europe-wide development.

Finland has long been involved in discrete projects of Eurocontrol: in 1995 the CAA signed an agreement with CFMU (Central Flow Management Unit) which regulates airflows, and in the same year it officially joined the organization's EATCHIP project (European Air Traffic Control Harmonization and Integration Programme) designed to improve airspace use in Europe.

Training for air traffic controllers

The CAA's air navigation college ran 134 weeks of training during 1998, with the emphasis on basic training. There were three basic courses in various phases of air traffic control during the year, attended by a total of 66 students. A total of 240 refresher, extension and special courses were organized for air traffic controllers and flight information officers. The courses were used to hone management skills, among other things and to provide training for the trainers and to coach supervisors.

Eurocontrol

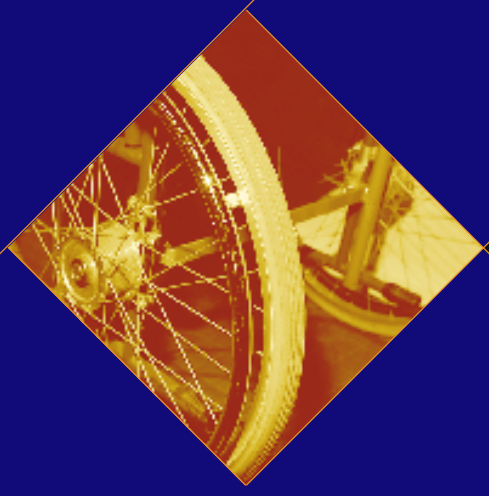
Stand clear, Raimo's in a hurry!

TV repair man RaimoToratti from Tornio surveys the domestic terminal of Helsinki-Vantaa airport from his wheelchair and declares:" There's plenty of room to move here and the service is really friendly. Access to the cafe is easy and the counter is the right height, although the ramp to the restaurant area could be a bit less steep. The lifts and the WC could be more clearly marked. The mirror in the Inva-WC is so high that people like me can only see the tops of their heads!

"It sometimes seems that in public buildings, the artistic effect is more important than practicality. I feel that if they paid more attention to obstacles when they design these buildings they would look better finished and it would be easier for everyone to get around."

A private businessman, Raimo flies many times a year to Helsinki for meetings of the Invalidiliitto (national invalid association) board or to association committee meetings around Finland. There is, says Raimo, one problem with flying — having to wake up early! Otherwise, the flight from Kemi-Tornio airport to Helsinki is no trouble. He boards the plane in a narrow transfer chair before the other passengers, his own wheelchair being stowed in the hold to await him at the end of the tunnel when he lands. "Actually, the seats on these new transfer chairs could be a little bit softer," Raimo comments.

The ramps to the Helsinki-Vantaa domestic terminal are well designed for wheelchairs, but getting to a taxi some distance off can be difficult in bad weather. "If they ran low-floor buses to Helsinki from the terminal I would take them," says Raimo, who is used to getting about on his own. He has driven on his own to France, picked up his nephew there and carried on right down to Spain. Among his travel memories — sleeping in his car overnight on the Champs-Elysee!



For the good of the environment and aviation

Towards an environmental programme

A CAA seminar in January dealt with a suggestion for setting up an organization for an environmental programme and dealing with the environmental affairs of the Authority at head office. The suggestion included the idea of developing an environmental scheme for the CAA which would contain separate, specific environmental goals for each area of activity.

The seminar also dealt with the initial theses underlying the CAA's environmental policy in which the Authority stresses that it is working both for the good of aviation and society. The goal is safe, regular air traffic which places as little burden on the environment as possible. Each and every member of the CAA staff is expected to take notice of the agreed environmental objectives and duties in his or her own work. The seminar papers also stressed the importance of environmental damage prevention and control and active international cooperation in environmental research.

A special management group was set up at the Civil Aviation Administration at the end of 1998 to concentrate on environmental affairs. Its purpose is to coordinate the environmental affairs of the various activities within the CAA and develop the institution's environmental management.

Gems

Gems environmental monitoring

Reporting of data obtained by Helsinki-Vantaa airport's aviation noise and flight path monitoring system, called GEMS (Global Environment Monitoring System) began in July 1998. The reports include data on flightpath densities in the areas affected by the airport and a summary of noise measurement results.

The measurements indicate that aircraft noise over residential areas varies daily according to the runways in use, among other reasons. For example, metering station 2, situated near the airport's auxiliary runway indicated significant aviation noise events only when the auxiliary runway was in use.

Another interesting finding was that constant noise metering provides information about other noise in residential areas besides that caused by aircraft. For example, a weekly rhythm of background noise is clearly observable showing that background noise on weekdays is higher than at weekends.

As expected, the GEMS system can provide comprehensive information on flightpaths and their allocations. This information has provided illustrative background material in our contacts with environmental officials and local area organizations, among others.

Numerical assessment of aircraft noise is still the most important method of determining the localized nature of aircraft noise. The GEMS system can provide more accurate flightpath analysis for use in computer simulations than previously, and this can significantly improve the reliability of noise reporting. The GEMS results can also be used to help in planning airspace utilization.

A new runway on environmental terms

The Civil Aviation Administration was granted a permit by the western Finland water authority in December 1998 concerning run-off water from the Helsinki-Vantaa airport. The permit covers structures relating to Runway III and the runoff of water containing anti-skid agents and glycol into the water system both from existing traffic and apron areas and from the forthcoming runway.

The Päijanne Tunnel, which carries pure drinking water for the entire capital area, runs under the new runway now being constructed. In addition, part of the new runway will be in a groundwater catchment area. In fact extensive environmental construction work will be carried out for the new runway to ensure that in no circumstances will water from the runway area be able to filter into the tunnel or the groundwater catchment area.

A watertight drainage system will be built alongside and beneath the runways to collect water containing the anti-skid agents and retain them long enough for the acetates to break down into carbon dioxide and water before they can leak into the water system. The quality of the water will be monitored at the mouth of the outfall pipe.

Central handling points will be built at both ends of the runway to take care of aircraft de-icing, from which the glycol-containing water will be collected and piped to the waste water cleaning plant.

Surveying the underground oil tanks

A basic survey was carried out during 1998 of about 40 underground fuel stores used by the buildings, maintenance equipment and other vehicles at airports. At the same time their present condition was assessed and plans drawn up for their replacement by above-ground alternatives, which are safer for the environment. It is the aim of the CAA to replace most of these tanks with new ones in the next few years.

Overall picture of the effects of aviation emissions

The constant growth of aviation around the world has aroused concern over the effects of aviation emissions at altitudes of 8 to 15 km on the atmosphere, and the matter has been extensively studied around the world in the past decade. To help us develop our own environmental programme the CAA commissioned a survey of published results from the University of Kuopio.

According to the report the acidity effects of nitrogen oxides and sulphur dioxides from aviation was infinitesimally small compared with other emissions caused by human activity. Ozone depletion in the stratosphere has been observed as relating to the reaction of ozone with halogenated compounds and aircraft emissions are not seen as being the probable cause. Nor has the part played by these emissions in the increase of ozone in the troposphere been clearly demonstrated.

Nitrogen oxide emissions evidently have a greater effect on the increase in the greenhouse effect than corresponding ground-level emissions. However the quantitative value of these effects has decreased significantly in recent years as awareness has increased. The heating effect of aviation nitrogen oxides and carbon dioxide is estimated to amount to 5 % of the heating effects of greenhouse gases accumulated since the last century.

Water survey in jyväskylä

A report by the Central Finnish Environmental Centre (Keski-Suomen Ympäristökeskus) studied the effects of nitrogenous runway deicing agents in the waterways below Jyväskylä airport. The report concluded that flushing with nitrogen mainly during the winter months did not appear to have a significant effect on the basic production of the nearby Lehesjärvi waterway.

V2000

CAA development projects in 1998

Safely into the new millennium

In 1997 the Director General set up a working group charged with ensuring the functionality and safety of systems in use with the CAA in the year 2000. An outside consultant was hired to handle the overall coordination.

During its inventory phase the Year 2000 (YK2) Group uncovered more than 200 systems and programmes within the organization which needed to be inspected, followed up or corrected and these were divided into various categories of seriousness. Outside systems suppliers were asked for written confirmation that their systems would continue to function after the year 2000. Notwithstanding these assurances, the Civil Aviation Administration has been testing the most important systems itself and has been preparing back-up systems for them. These systems are being vetted right down to component level.

The YK2 Group reports regularly to the CAA management on the progress of their work and they have been working in cooperation with Finnair and the airlines' association IATA, among others. The majority of the necessary changes and revisions have already been carried out and the CAA is confident that air travel in Finland will continue safely as we pass into the next millennium.

Information in a flash with Avianet

The CAA's web-based internal information system has reached its test phase. AviaNet will be at the disposal of the CAA's 1,700 employees by the autumn of 1999.

AviaNet is an intranet application designed for the Civil Aviation Administration, its content, structure and properties being hammered out by the CAA's project team in conjunction with the program supplier. During the year the team concentrated on working on management of user rights and design of information content for the net.

The purpose of the project is to make the CAA's most important documents — instructions, regulations, reports, statistics and manuals — available on the AviaNet during the year 2000. News, information bulletins and brochures will be available on the net and the airports will also have their own electronic pages. For the first time, numerous compendiums of information will be available under one user interface.

The intranet will make information production, distribution and use more efficient within the CAA. "The AviaNet is a way to exploit existing sources of information, speed up its distribution and thereby expand staff awareness. I believe that the time spent on seeking and maintaining information throughout the organization will be reduced by the net," says Erkki Pitkänen, Director of the Administrative Department.

Various project groups can benefit from the network by opening a page on it for their own use. Even CAA personnel on the move can log into the AviaNet through their portable computers and mobile GSM telephones. There is a so-called "firewall" between the CAA's own net and the Internet which denies access to outsiders.

Fortime to pay wages in 2000, too

The Civil Aviation Administration's YK2-proof wage management information system, Fortime, consists of both staff files and payments sections and thus replaces the separate personnel information files and pay calculation systems previously in use with the CAA. Fortime's personnel files went into operation in November while the pay system is scheduled to be running in March 1999.

Under the new system, information will flow automatically between the personnel files and the pay modules, reducing the time necessary to feed in the data by hand. The system can effortlessly generate reports and statistics which will, for example, allow individual airports to monitor their own activities better.

Travelling is a project

Retiring doesn't mean changing your life completely," say Ritva and Matti Hurme, from Helsinki, after five years' experience. "We still have the same hobbies as we used to — we read, go to concerts and we travel."

For the Hurmes, travelling means getting to know a new country thoroughly and they always plan their travel projects with great care — they have no interest in package tours. "We usually take a long trip of several weeks in the spring. We fly out to a country and have a hired car and a house waiting for us when we get there. It's nice to stay in a house as a change to living in the centre of Helsinki, and the car means we can travel around to our own timetable. We have done it this way in southern France, the English midlands, Tuscany in Italy and Portugal."

The Hurmes often travel to Stockholm to meet their friends, while a Christmas trip to the neighbouring capital has already become a tradition. "It can be tiring taking the boat to Stockholm, but the plane gets you there early and fresh and ready to take on the whole day. There are lots of interesting things to see in Stockholm."

There is perhaps one aspect of Ritva's and Matti's lives that has changed with retirement — nowadays they set off for the airport in good time. "Starting out in a hurry and the worry of whether you are going to get there in time can ruin the whole mood. When you get to the airport in time you can look around and perhaps even do a bit of shopping. The atmosphere of the airport makes a big difference to travelling; if it's pleasant and easy to get around you are not bothered about waiting a bit longer."


VICE
VERSA

Personnel

Accumulated working hours measures work input

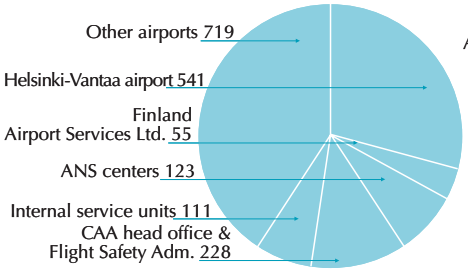
Accumulated staff working hours at the Civil Aviation Administration Group during the accounting period amounted to 1,777 man-years of work. This calculation of accumulated working hours indicates time worked and takes into account the effects of part time working and unpaid time off.

Accumulated staff working hours at the CAA amounted to 1,722 man-years of work, of which 1,684 were spent on operational activities and 38 on investment projects. The accumulated work input at the airports amounted to 1,260 years, 123 at the air navigation centres, 111 at the internal service units, 57 at the flight safety authority and 171 at other units at head office.

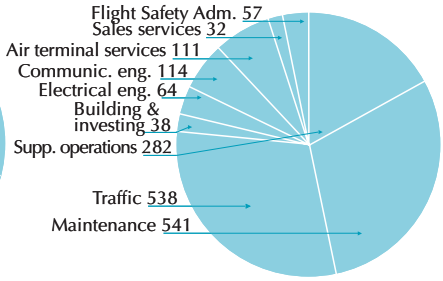
The average age of CAA staff in 1998 was 41.6 years, which was 0.6 years younger than in the previous year. The proportion of women fell slightly, to 27.6 % (it was 28.2% in 1997). The largest proportion of staff, 30.0%, were working in traffic operations, 19.5% were in maintenance and 17.2% were in support functions. Support functions includes those involved in the administration of airports or design and development tasks at head office.

Total wages and bonuses paid to CAA Group staff amounted to FIM 326 million. Salaries and fringe benefits paid to members of the Group's Board and the managing director amounted to FIM 1,202,000. Total salaries and bonuses paid to staff of the CAA itself amounted to FIM 318 million. Salaries and bonuses for its Board members and managing director amounted to FIM 797,000.

STAFF WORKING YEARS
CAA GROUP 1998



STAFF WORKING YEARS
PER SECTOR
CAA GROUP 1998



STAFF WORKING YEARS
CAA GROUP 1998

171	CAA head office
111	Internal service units
57	Flight Safety Administration
55	Finland Airport Services Ltd.
541	Helsinki-Vantaa airport
105	ANS Center South Finland
70	Oulu airport
62	Tampere-Pirkkala airport
61	Kuopio airport
59	Rovaniemi airport
55	Turku airport
48	Jyväskylä airport
42	Vaasa airport
36	Pori airport
34	Ivalo airport
27	Lappeenranta airport
25	Kruunupyy airport
25	Kemi-Tornio airport
24	Joensuu airport
23	Kajaani airport
23	Mariehamn airport
18	Savonlinna airport
18	ANS Center North Finland
17	Helsinki-Malmi airport
16	Kauhava airport
14	Kittilä airport
12	Kuusamo airport
10	Utti airport
9	Halli airport
5	Varkaus airport
4	Enontekiö airport

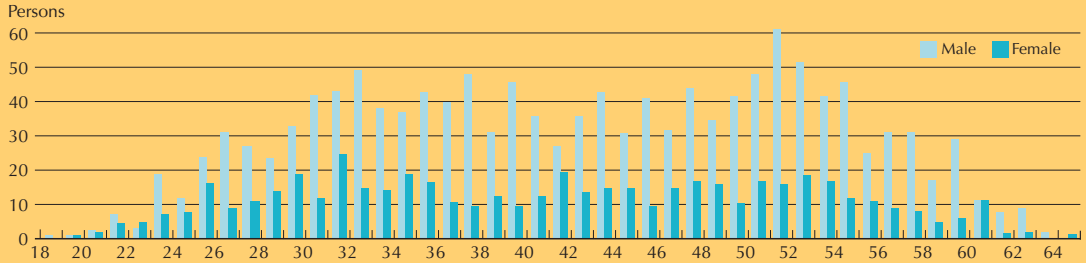
The emphasis on training

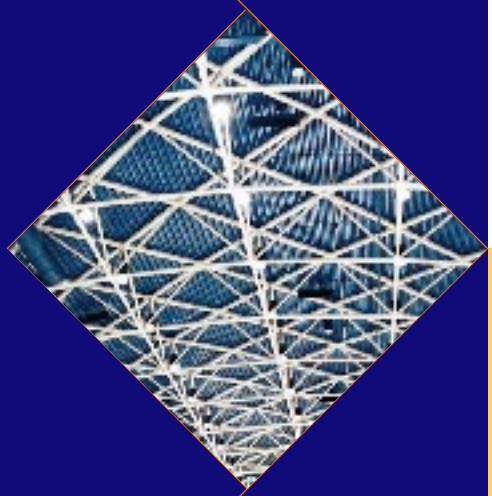
The CAA is constantly raising the professional standard of its personnel, keeping it up to date and maintaining it at a high level. During 1998 the emphasis throughout all the CAA's activities was on ensuring basic services, whilst the importance of cooperation, interaction and customer-orientation was highlighted in the various training courses and sessions.

A course brochure is prepared every year to cover all the training requirements for CAA personnel. Every year we organize basic training sessions as well as refresher and supplementary courses to reinforce professional skills. In quantitative terms, most of the training in 1998 was provided for groups of air navigation and maintenance personnel. Continual training was also provided for financial and office personnel as a result of the adoption of the new staff management information processing systems. The CAA's e-mail system was changed during the year to the modern Outlook 97 system and all the staff of the CAA have been instructed in how to use it.

The effects of training are assessed through the quality of work and annual development discussion sessions with the nearest supervisor. The CAA also supports training for staff in their spare time, where it helps improve their professional skills.

PERSONNEL: AGE AND SEX DISTRIBUTION 1998





International cooperation

Icao working for conformity in air safety

The general meeting of the International Civil Aviation Organization (ICAO) was held in Montreal in late September and early October. Finland was represented by a delegation led by Director General Mikko Talvitie.

As regards the changeover into the new millennium the conference adopted a resolution requiring every government to publish information on the YK2 fitness of its air navigation systems and airports, by 1st July 1999. It is the task of the ICAO to issue instructions on the matter to the aviation officials in each country. The ICAO also adopted a resolution on compulsory inspection programmes by which a country's air safety regulations and official activities can be assessed. These inspections were scheduled to begin at the beginning of 1999, the aim being that every country be inspected once by 2001. The resolution significantly expands the purview of the ICAO and at the same time provides an excellent platform for promoting more unified air safety measures around the world.

Global air safety planning is a new development programme for the ICAO intended to reduce the number of destructive accidents amid the increase in air traffic. Member states are given advice on the adoption of new technical systems and on improving their policies and regulations in order to prevent aircraft accidents. An essential part of the programme is the effort to improve English language skills and usage in aviation radio traffic.

The Scandinavian participants to the conference worked in close cooperation. With Norway being elected to the ICAO council the leadership of Nordicao, the office of Nordic aviation authorities shifted from Denmark to Norway.

Ecac Icao

Ecac membership grows

A full meeting of the European Civil Aviation Conference, ECAC, accepted Albania as its latest member, in Paris in July 1998. It now has 37 member countries. The plenary session also finally adopted a recommendation concerning flight safety clauses to be included in bilateral aviation agreements.

Aviation policy day-to-day

In connection with the initialling of the aviation agreement between Finland and Bahrain in March, it was agreed that Bahrain could appoint Gulf Air, which it owns jointly with three other Arab states, to operate the air traffic permitted under the agreement.

An air traffic agreement was signed by Finland's Foreign Minister, Tarja Halonen between Finland and Qatar during her visit to that country in November.

An air traffic agreement between Finland and Mongolia was initialled in Ulan Bator in December. The agreement guarantees permanent overflight rights for Finnair.

A Memorandum of Understanding on code share arrangements between Finland and the United Kingdom was signed in Brussels in November.

An air lane between Lappeenranta and St. Petersburg was opened at the beginning of the year and Finnair began operating this route in March. Finnair and Aeroflot did not make progress during the year in their negotiations to increase flights between Helsinki and Moscow and Helsinki and St. Petersburg.

Cold cuts in the sky

Why does sales manager Pekka Orvola smirk with delight when the flight attendant serves him his cup of coffee and his breakfast roll? Because nestling inside this roll is likely to be a slice of cold meat from his own company, Kotivara Oy, which has been preparing meat products in Oulu for two generations. His own cold cuts have reached the heights!

The clients of this family firm of cold-smoked meat specialists are the big national shopping chains whose head offices are in Helsinki. This leads Pekka to spend some sixty days a year travelling, mainly in Finland. "Autumn is the busiest time of the year for sales and that's when I often have to fly down to Helsinki for talks. I may fly on from there to Turku or Kuopio."

He rates Oulu airport as functional and pleasant and says the terminal service is friendly. When he's travelling he drives to the airport in his own car, always, as he admits, at the last minute. "I think the parking is expensive but it's easier to get back home in the evening by car. I don't have much time to do more than buy a morning paper at the kiosk before the plane takes off."

When he gets to Helsinki-Vantaa Pekka usually rents a car for the day. Late in the evening, after a long day's work and lots of cups of coffee he sometimes drops in at the Fly Inn airport restaurant for a good bowl of salmon soup.

"The airport for me is above all a place to wait. If I have to wait long I appreciate the chance to read the newspaper or do some work in peace."

■


KALEVA

Report of the board

Objectives for 1998

The Council of State set the following service, operational and profit objectives for the CAA for the year 1998:

- Aviation operations must be carried out as safely, as effectively and appropriately as possible.
- The CAA must offer and develop its services on the principle of profitable business operations and must take into account the wishes of its clients — including military aviation — and the needs of society.
- Finnish airports and flight navigation system must be maintained and developed as a unified whole and in conformity with the demand for their services.
- The primary duty of the CAA is to safeguard the services at airports which are necessary for the safe operation of regular air traffic.
- The most important investment projects for the year 1998 were the development work at Helsinki-Vantaa airport and the completion of the upgrade of the air navigation system.

The profit target set for the CAA by the Council of State for 1998 was FIM 60 million. The actual result for the financial year was FIM 95.6 million.

The 1998 Board members: (left) Seppo Simola, Tuulikki Petäjäniemi, Pekka Hurtola, Mona Björklund, Mikko Talvitie and Matti Puhakka

CAA Finland Group Organization

BOARD

DIRECTOR GENERAL

CAA BOARD OF DIRECTORS 1998
- Mr. Mikko Talvitie, Chairman
- Mr. Pekka Hurtola, Deputy Chairman
- Ms. Mona Björklund
- Ms. Tuulikki Petäjäniemi
- Mr. Matti Puhakka
- Mr. Seppo Simola

HEAD OFFICE
- PR & Information, Internal Auditing
- International Affairs
- Finance Dept.
- Administrative Dept.
- Airports Dept.
- Air Navigation Services Dept.

HELSINKI–VANTAA AIRPORT

AIRPORT GROUPS
- Rovaniemi
- Oulu
- Vaasa
- Kuopio
- Turku
- Jyväskylä

AIR NAVIGATION SERVICES CENTERS
- Southern Finland (Tampere)
- Northern Finland (Rovaniemi)

FLIGHT SAFETY ADMINISTRATION

INTERNAL SERVICES UNITS
- Invoicing
- Salaries
- Bookkeeping
- ANS Institute
- Airport Technics
- ANS Engineering

SUBSIDIARY COMPANIES
- Finland Airport Services Ltd.
- Kiinteistö Oyj Lentäjäntie 1
- Kiinteistö Oyj Lentäjäntie 3
- Airport Real Estates Ltd, unregistered company
- Kiinteistö Oy Turun Lentorahti

Developments in air traffic and other changes to our operating environment

The development of air traffic

The Finnish economy continued to grow strongly during 1998. Air traffic also expanded strongly, particularly in regular domestic traffic. The growth in numbers of domestic passengers amounted to 13 % which was the second biggest increase in a continuous period of expansion since 1994. The growth in overseas passenger numbers over 1997 was 9 %.

Commercial aviation operations increased by 13 %, a figure exceeded during the 1990s only in 1990 itself, when the number of operations increased by 14 %. During the most congested periods at Helsinki-Vantaa airport the number of hourly operations during 1998 were at times very close to the maximum capacity of the runway system.

The number of domestic charter, private and military flights remained at the 1997 level. However, the biggest increase of all was in overflights, which increased by 31 % over the 1997 level. The number of individual overflights,17,828, exceeded for the first time the previous peak year of 1992, when about 14,000 overflights were logged. The main reason for this increase was that traffic between Europe and the Far East tended to make greater use of the Transpolar route which passes over Finland. The volume of air freight grew by 2 % in 1998.

Pricing of air traffic services.

It is the aim of the CAA in pricing its services to be the cheapest in Scandinavia. It is striving to achieve the profitability and profit goals set for it by making increases to its charges below the inflation rate. 1998 CAA air traffic tariffs were at the average European level. The CAA continued to follow the deliberate pricing policy, which has been in effect throughout its entire period as a commercial operation, of raising charges for domestic traffic closer to production costs and correspondingly slightly lowering the charges for international traffic. The most important changes in tariffs instituted in 1998 are shown in the table below.

Charge	Tariff change (%) 97/98
Domestic passenger charge	0%
Domestic landing charge	+23,5%
International passenger charge	0,0%
International landing charge	-6,0%
Air navigation service charge	+12,0%
Navigation charge	0,0%

A number of other changes besides those to individual charges were introduced which lowered the cost for air travel. The most significant of these was the lowering of the transfer charge levied on passengers changing from domestic to international flights, from FIM 56 to FIM 20. A number of changes were also made to the accounting formula for navigation charges in order to lower the real level of charges.

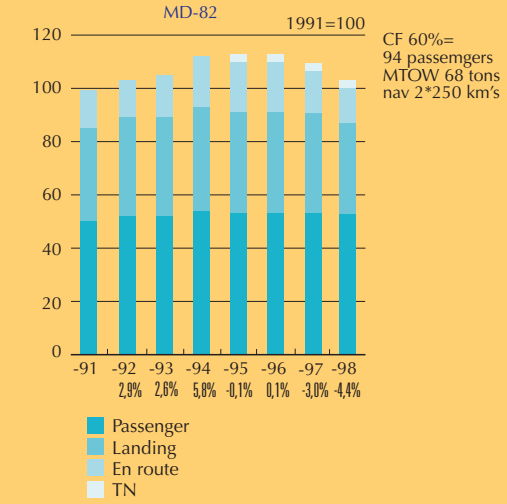
The price change per operation of the most common type of aeroplane in use on domestic flights was + 3,5 % and - 4,4 % for those in use on overseas flights. Charges to overflying aircraft fell by 8 % as a result of the changes.

The overall effect of the tariff changes on CAA earnings was - 2,4 %.

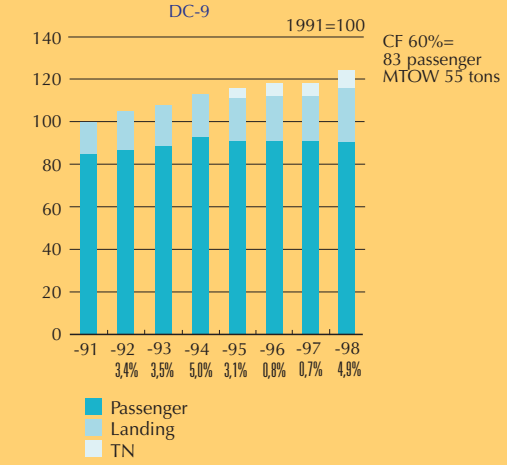
Income distribution for the CAA

	1998 Million FIM		**1997** Million FIM	
Turnover and other business activity income	1086,4		976,7	
Production cost of services	-324,5		-278,2	
Financing income	20,4		18,2	
Amount to be distributed	**782,3**	**100%**	**716,7**	**100%**
Preliminary taxation	103,3		100,2	
Social security fee	12,7		11,7	
Unemployment insurance fee	6,2		6,5	
Real estate tax	4,7		4,4	
Other public expenditures	2,3		1,6	
1. Public expenditure	**129,2**	**17%**	**124,4**	**17%**
Wages	317,7		291,2	
Preliminary taxation	-103,3		-100,2	
Contribution to pension fund	61,1		54,9	
Social security and unemployment insurance fees	(-18,9)		(-18,2)	
Other personnel costs	6,5		9,8	
Education	10,0		7,5	
2. Personnel	**292,0**	**37%**	**263,2**	**37%**
Financial costs	18,3		15,2	
3. Financiers	**18,3**	**2%**	**15,2**	**2%**
Fixed assets	239,6		241,7	
Changes in reserves	7,6		-1,1	
Undivided profit	95,6		73,3	
4. Infrastructure development	**342,8**	**44%**	**313,8**	**44%**
Amount to be distributed in relation to the number of movements and passengers				
Number of movements	357 036		331 418	
Number of passengers	9 965 443		9 066 566	
Amount to be distributed (FIM)				
per movement	2 191		2 163	
per passenger	79		79	

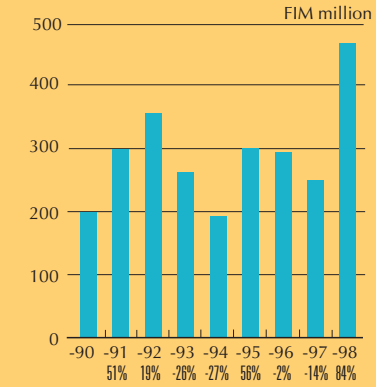
AIR TRAFFIC CHARGES
IN INTERNATIONAL TRAFFIC 1991–1998



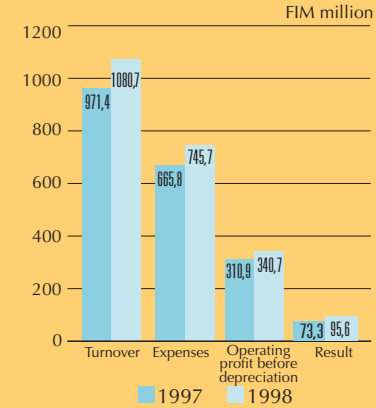
AIR TRAFFIC CHARGES
IN DOMESTIC TRAFFIC 1991–1998



INVESTMENTS 1990–1998



COMPARISON OF THE RESULT 1997–1998



Financial result 1998

Financial result for the CAA Group

The CAA Group consists of the CAA and its Group subsidiaries Kiinteistö Oyj Lentäjäntie 1, Kiinteistö Oyj Lentäjäntie 3, Suomen Lentoasemapalvelut Oy and Kiinteistö Oy Turun Lentorahti.

The CAA Group set up another new company during the year called Lentoasemakiinteistöt Oyj. Its remit is to build, own, sell and rent for the use of air transport related operations at airports, office space on land held in its possession by right of lease or freehold ownership or office space which it controls as a shareholder in another company.

The turnover of the CAA Group in 1998 was FIM 1.080.5 million and earnings on other operations amounted to FIM 5.7 million. Turnover for the CAA Group increased by 11 %. Operating costs amounted to FIM 738.1 million, representing an increase of 12 %. The CAA Group earned a profit before provisions and taxes of FIM 102.3 million and the book result was FIM 94.7.

Total investments for the CAA Group reached FIM 530 million.

Financial result for the CAA

The CAA made a profit during 1998 of FIM 95.6 million, which clearly exceeded the target set for it by the Council of State of FIM 60 million. The primary reasons that the profit target was exceeded were the larger than expected growth in air traffic and the financial position, which was better than budgeted. This latter factor enabled financial items to emerge as FIM 2 million positive.

The turnover for the CAA during 1998 was FIM 1.080.7 million, which represents an increase of more than FIM 100 million (11 %). In addition to operational profits, the CAA's commercial profits increased by FIM 43.8 million. Other profits on business operations amounted to FIM 5.7.

Operating costs also increased over the previous year and totalled FIM 745.7 million. The most significant reason for the increase in costs (FIM 80 million more than in 1997) was the increase in traffic, already mentioned. Even the smaller airports had to extend their operating hours in order to be able to cope with the extra traffic resulting from the increased demand. For many places this led to unexpected costs. As far as the CAA's operations were concerned, the important YK2 project and other alterations to information systems raised costs by a total of FIM 8 million. In addition the CAA made compulsory provisions for future costs of the YK2 project. These provisions amounted to FIM 2 million. Staff costs also increased as a result of a profit bonus paid to all personnel, which, with supplementary costs amounted to FIM 6.9 million. Operating costs included other one-time costs of FIM 7.6 million.

The CAA's operating margin was FIM 340.6 million, which was an increase of almost FIM 30 million (9,6 %) over the 1997 figure.

Depreciations were carried out as budgeted. Depreciations included extra depreciations totalling FIM 18.8 million.

The book result for the CAA after financial items and depreciations was FIM 95.6 million in profit.

Investments in 1998

Investment spending by the CAA in 1998 rose to a total of FIM 463 million. The CAA was entitled under the government budget for 1998 to spend a maximum of FIM 500 million on investments. The biggest single items of investment for 1998 were the second phase of the central terminal at Helsinki-Vantaa airport, the total cost of which is estimated to be FIM 370 million, and the third runway, which will come into service in 2002. The estimated cost of the third runway is FIM 630 million.

The airport network was developed with improvements at other airports too. The most important of these completed during 1998 were the extensions to Vaasa airport and Lappeenranta airport runways and the expansion of the Kuusamo terminal building.

Financing

The state budget initially granted the CAA the right to raise FIM 250 million in long term loans. The supplementary budget for 1998 raised this figure to FIM 650 million. This made it possible for the CAA to sign a borrowing agreement in May with the European Investment Bank for the sum of FIM 650 million. During 1998 FIM 150 million of this sum was taken up.

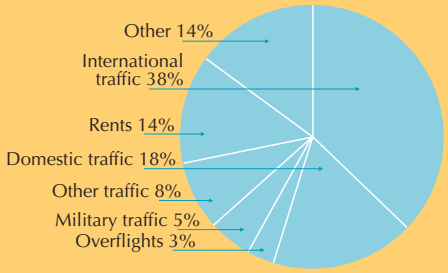
Income financing for the CAA Group before investments amounted to FIM 349 million (1997; 320 million). Correspondingly, income financing for the CAA itself was FIM 345 million (1997; 314 million).

The solvency ratio for the CAA at the end of the financial year was 80,8 % (1997; 80,5 %).

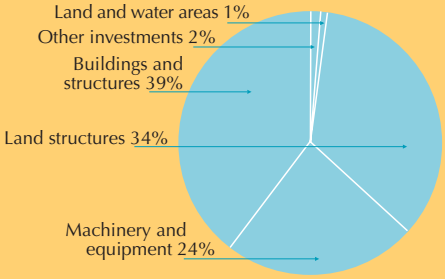
Cash liquidity for the Group at the end of 1998 was FIM 445 million. Liquid reserves increased during 1998 by FIM 50 million. The average level of interest earnings on cash reserves was 4,85 %.

Long term borrowing by the CAA Group at the end of 1998 amounted to FIM 571 million, of which FIM 370 was owed by the CAA itself. During the year the interest paid on borrowed capital on average was 4,64 %.

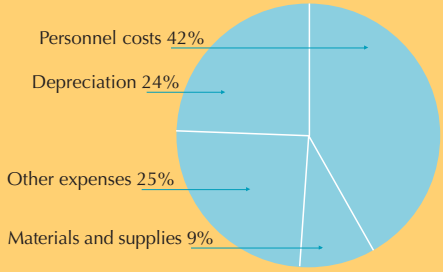
INCOME 1998



INVESTMENTS 1998



EXPENSES 1998



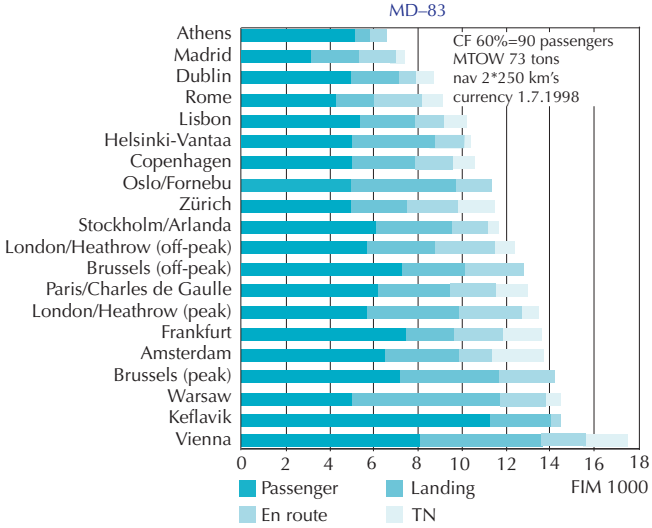
Changes to the administration

There were no changes to the CAA Board during the financial year.

Measures aimed at clarifying the position of the Flight Safety Authority were continued during the year.

A separate financial office was set up at head office which took over overall responsibility for the CAA Group's economic and financial activities. In addition, a number of revisions were made to the operations of internal CAA service units.

AIR TRAFFIC CHARGES 1998



Outlook for 1999

Earnings for 1999 will be overshadowed by a long running strike by air traffic controllers and the very probable abolition of tax-free sales within the European Union from July 1st 1999. In addition a decline in growth in the national economy is highly likely to affect the development of air traffic.

The CAA estimates that without the effect of the strike, air traffic will grow by between 4 and 5 % during 1999. This estimate is based on the assumption of a 2.5 % growth in Gross Domestic Product.

The CAA will continue its ongoing investments in improvements at Helsinki-Vantaa airport. The total level of investment by the CAA will rise to FIM 580 million in 1999.

Profits for 1999 will be significantly below those of 1998.

The achievement of FSA objectives for 1998

Operational goals as set by the Ministry of Transport and Communications for the Flight Safety Administration section of the CAA were accomplished as follows:

1. Introduction of JAR-OPS joint European regulations governing commercial aviation and preparation for the adoption of joint European JAR-FCL regulations concerning licences.

JAR-OPS aviation standards came into force in April 1998 for heavy air transport and commercial licences conforming to the new standards were granted to four companies. In addition, preparations were undertaken during the year to apply corresponding standards to passenger and cargo flights undertaken by lighter aircraft and helicopters and for the introduction of JAR-FCL licence standards in 1999. The testing and inspection system for licences was renewed at European level.

2. Active participation in preparations for the founding of EASA, the European Aviation Safety Authority.

As the representative for Finland, the Flight Safety Administration took an active part in the preparatory work for the creation of EASA.

3. Development of the hazardous situation monitoring and analysis system.

A new and more accurate system for categorizing hazardous and anomalous incidents was adopted at the beginning of 1998.

4. The FSA requires the CAA to develop a quality control system for air navigation according to EATCHIP (the European Air Traffic Control Harmonization and Integration Programme) and will monitor the progress of this.

The CAA has adopted a safety management system and support organization for its air navigation operations. The Flight Safety Administration is monitoring this to ensure that the system fulfills all the demands set for it.

5. Improvement of customer service by charting the present situation, improving operating methods and training staff.

The Air Safety Administration employed an outside consultant to elucidate the present state of customer services. A customer service programme was drawn up on the basis of this work.

Income statements
1.1.1997–31.12.1998

	GROUP		CAA	
	1998 FIM thousand	1997 FIM thousand	1998 FIM thousand	1997 FIM thousand
TURNOVER	**1 080 545**	**971 016**	**1 080 677**	**971 353**
Other revenue from business activity	5 726	5 308	5 725	5 308
EXPENDITURE				
Materials and supplies				
Purchases during financial year	90 191	79 592	90 128	79 800
Increase (-)/ decrease (+) in inventories	-415	-195	-415	-195
Services bought from outside suppliers	162 085	145 511	172 077	153 595
Personnel costs	424 307	384 006	414 455	376 301
Rents	10 202	7 533	18 976	16 005
Other expenses	51 713	41 457	50 505	40 278
EXPENDITURE	**738 083**	**657 904**	**745 726**	**665 784**
OPERATING PROFIT	**348 188**	**318 420**	**340 676**	**310 877**
DEPRECIATIONS				
Buildings and structures	73 153	61 228	69 722	57 810
Machinery and equipment	104 907	116 545	102 927	114 430
Land structures	64 932	67 652	64 932	67 611
Intangible rights	1 839	1 596	1 839	1 596
Other long-term outgoings	241	214	199	214
DEPRECIATIONS	245 072	247 235	239 619	241 661
OPERATING PROFIT	**103 116**	**71 185**	**101 057**	**69 216**
FINANCING INCOME AND EXPENDITURE				
Dividend income	3		35	32
Interest income	20 968	13 361	19 767	12 720
Share of company profits	52			
Other financial income	3 075	7 870	639	5 418
Interest expenses	-22 885	-17 571	-16 287	-12 961
Other financing costs	-2 030	-2 282	-2 015	-2 280
	-817	**1 378**	**2 139**	**2 929**
PROFITS BEFORE PROVISIONS AND TAXES	**102 299**	**72 563**	**103 196**	**72 145**
Increase (-) / decrease (+) in depreciations	-7 698	-11 791	-7 608	-11 700
Increase (-)/decrease (+) in optional reserves		12 827		12 827
	-7 698	1 036	-7 608	1 127
Direct taxes	-183	-80		
PROFIT BEFORE MINORITY SHARE	**94 418**	**73 519**	**95 588**	**73 272**
Minority share for the financial year	249	-585		
PROFIT FOR THE FINANCIAL YEAR	**94 667**	**72 934**	**95 588**	**73 272**

Balance sheet
1.1.1997–31.12.1998

	GROUP		CAA	
	1998	1997	1998	1997
	FIM thousand	FIM thousand	FIM thousand	FIM thousand
ASSETS				
Fixed assets and other long term investments				
Intangible assets				
Intangible rights	11 738	8 480	8 221	6 160
Other long term expenditure	225	424	225	424
	11 963	8 904	8 446	6 584
Tangible assets				
Land	223 649	221 229	223 649	221 229
Buildings and structures	1 173 327	1 201 652	1 057 179	1 082 186
Machinery and equipment	420 341	395 217	413 985	387 665
Ground structures	589 890	616 469	589 386	615 923
Advances and work in progress	521 454	214 912	449 017	206 717
	2 928 661	2 649 479	2 733 216	2 513 720
Securities and other long term investments				
Stocks and shares	2 142	898	36 132	34 080
Current and financial assets				
Current assets				
Materials and equipment				
Finished products and goods	2 887	2 471	2 887	2 471
	2 887	2 471	2 887	2 471
Receivables				
Accounts receivable	79 931	74 987	81 365	75 851
Receivables carried forward	42 649	35 117	40 091	33 219
Other receivables	71	127	71	127
	122 651	110 231	121 527	109 197
Financial assets and other long term investments				
Other financial assets	409 122	378 500	399 122	368 500
Cash and money in bank accounts	37 115	16 521	4 242	1 808
	446 237	395 021	403 364	370 308
	3 514 541	**3 167 004**	**3 305 572**	**3 036 360**
LIABILITIES				
Own equity				
Restricted equity capital				
Basic equity	1 097 236	1 097 236	1 097 236	1 097 236
Own non-restricted capital				
Other capital	1 262 131	1 262 131	1 262 131	1 262 131
Profit/loss from previous financial years	181 558	130 605	193 035	141 744
Profit/loss for financial year	94 667	72 935	95 588	73 272
	1 538 356	1 465 671	1 550 754	1 477 147
Minority share	8 002	8 249		
Provisions				
Accumulated depreciation	19 489	11 791	19 308	11 700
Obligatory reserves	2 160		2 160	
	21 649	11 791	21 468	11 700
Current liabilities				
Long term				
Loans from financial institutions	570 500	375 500	370 000	250 000
Membership fees	1 759	882	2 356	882
	572 259	376 382	372 356	250 882
Short term				
Loans from financial institutions	35 000	35 000	30 000	30 000
Advances received	4 576	7 082	4 576	7 082
Bills payable	101 178	71 951	95 805	70 797
Accrued expenses	88 512	73 836	86 090	72 098
Other short term debt	47 773	19 806	47 287	19 418
	277 039	207 675	263 758	199 395
	3 514 541	**3 167 004**	**3 305 572**	**3 036 360**

Financing statement
1.1.1997–31.12.1998

	GROUP		CAA	
	1998	1997	1998	1997
BUSINESS ACTIVITIES	FIM thousand	FIM thousand	FIM thousand	FIM thousand
Total income financing				
Operating profit	347 913	318 420	340 400	310 877
Income and expenses on financing	-869	1 377	2 139	2 929
Increase (-)/decrease(+) in obligatory reserves	2 160		2 160	
Taxes	-158	-80		
Total	**349 046**	**319 717**	**344 699**	**313 806**
Change in working capital				
Increase (-) decrease (+) in short term receivables	-16 284	17 884	-12 746	18 396
Interest free short term debt, increase(+)/decrease(-)	74 258	9 754	65 836	9 007
Total	57 974	27 638	53 090	27 403
CASH FLOW IN BUSINESS OPERATIONS	**407 020**	**347 355**	**397 789**	**341 209**
INVESTMENTS				
Land and water areas	2 420	9 830	2 420	9 830
Buildings and structures	247 687	103 636	183 327	79 935
Machinery and equipment	110 521	99 825	109 662	98 828
Land structures	160 668	55 555	160 633	55 555
Stocks and shares	2 194	83	2 052	5 720
Intangible rights	6 273	1 386	4 480	1 845
Other long term expenditure	474		509	
Total	**530 237**	**270 315**	**463 083**	**251 713**
SALE OF FIXED ASSETS	412	646	332	640
CASH FLOW BEFORE FUNDING	**-122 805**	**77 686**	**-64 962**	**90 136**
FINANCING				
Increase(+)/decrease(-)in long term loans	225 000	-32 746	150 000	-43 246
Incease(+)/decrease(-)in short term loans	-30 000	26 890	-30 000	18 108
Increase in share capital/basic capital	2	1 366		
Owners' revenue requirement	-21 982	-5 000	-21 982	-5 000
Total	**173 020**	**-9 490**	**98 018**	**-30 138**
INCREASE(+)/DECREASE(-) IN LIQUID ASSETS	50 215	68 196	33 056	59 998
LIQUID ASSETS				
Liquid assets 1.1.	395 021	326 825	370 308	310 310
Liquid assets 31.12.	445 236	395 021	403 364	370 308
CHANGE IN LIQUID ASSETS	**50 215**	**68 196**	**33 056**	**59 998**

Notes on the financial statements

1. Group accounting principles

The financial statement for 1998 has been drawn up in accordance with the accounting principles for state enterprises and groups of enterprizes as laid down in Council of State decision (1247/1993) of 16.12.1993.

The CAA Group consists of the Civil Aviation Administration organization and other companies within the Group as follows: Kiinteistö Oyj Lentäjäntie 1, Kiinteistö Oyj Lentäjäntie 3, Suomen Lentoasemapalvelut Oy and Kiinteistö Oy Turun Lentorahti. A new company, Lentoasemakiinteistöt Oyj was set up by and within the Group during the accounting period and a 25% share in Nurminen Airport Services Oy, a limited company, was acquired. More detailed information regarding companies within the group appears under the heading "CAA Group companies," in the notes on the financial statements.

Internal transactions within the Group and internal receivables and liabilities have been eliminated. Cross-owner ship of shares has been eliminated using the past-equity procedure. Minority shares have been removed from the Group's own equity capital and earnings and shown as a seperate item on the balance sheet.

Financial statements concerning electricity grid and electricity sales appear separately in the Notes to the Financial Statements, as required under the Electricity Market Act.

2. Salaries and wages in the financial year	**GROUP**		**CAA**	
Performance based	**1998**	**1997**	**1998**	**1997**
	FIM thousand	FIM thousand	FIM thousand	FIM thousand
Salaries and bonuses for the Board of Directors and Managing Director	1 202	1 088	797	753
Other salaries	299 484	279 970	292 634	274 520
Bonuses		5 555		5 555
Holiday pay	14 770	13 961	14 583	13 849
Change in holiday pay provision	4 446	2 317	4 160	2 091
Fringe benefits	454	299	451	294
Total	325 911	297 634	318 179	291 507
3. Social security payments				
Pension spending	62 398	55 845	61 102	54 845
Unemployment insurance payments	5 738	6 570	5 678	6 512
Other personnel costs	30 925	24 255	30 397	23 731
Total	99 061	86 670	97 177	85 088

Holiday pay provisions include holiday pay earned since the beginning of the relevant holiday year (9 months), holiday bonuses, unspent annual leave and saved time off.

CAA staff are covered by the state national pension scheme. Performance-based pension payments calculated according to the 1998 salary bill in compliance with the principle of full coverage as applied in insurance mathematics, are entered in full in the income statement. The state treasury set the pension rate at 18.62 % (1997; 19.0 %).

The CAA Group employed an average of 1732 people during the financial year (1997; 1723).
The CAA itself employed and average of 1704 people (1997; 1660), of whom 1682 were in operational occupations (1997; 1637) and 22 (1997;23) were employed on investment projects.

At the end of the financial year there were 1786 persons employed by the CAA Group (1997; 1734). The number of permanent staff at the CAA at the end of the financial year was 1489 (1997; 1515), while 231 (1997; 155), were employed on fixed-term contracts.

Notes on the financial statements

4. Exchange rate principles concerning payments in foreign currencies.

Receivables and liabilities in foreign currencies have been converted into Finnish currency according to the Bank of Finland central exchange rate at the date of the closing of the books. Exchange rate profits and losses have been entered in full into the financial statement as and when they affect the balance sheet.

5. Intangible and tangible assets and depreciations

Planned depreciation has been calculated to a uniform principle for the Group using the straight line or reducing balance method of depreciation for the economic life of fixed assets.

Economic life and depreciation percentages were as follows:

	Years	Depreciation percentage	
Intangible assets			
Intangible rights	5	20%	Straight line
Other long term expenditure	5	20%	Straight line
Tangible assets			
Buildings and structures	10 - 40	2,5 - 5 %	Straight line
Machinery and equipment	5 - 20	6,7 - 15 %	Reducing balance
Earth structures	10 - 40	2,5 - 10 %	Straight line

In addition to obligatory planned depreciations, the following budgeted further depreciations have also been entered into the financial statement:

Buildings and structures

Parts of the 2nd phase of the construction at the Helsinki-Vantaa airport central terminal	5,5 Mmk
Demolition costs relating to construction work at Turku airport building	2,7 Mmk

Machinery and equipment

The economic life of the current air navigation system (radar systems) has been reduced to the year 2000 because of the adoption of a new flight navigation system, which will increase planned depreciations.	1,1 Mmk

Earth structures

Construction costs of public service roads for Helsinki-Vantaa airport	3,1 Mmk

Investment work in progress

Sections of the construction work for phase 2 of the Helsinki-Vantaa central terminal building	3,3 Mmk
Temporary arrangements for construction of the third runway	0,8 Mmk

Non-income earning assets

The capital value of Helsinki-Malmi and Enontekiö airport assets has been adjusted/reduced in the balance sheet to correspond to their earning requirements.	2,1 Mmk

Notes on the financial statements

	GROUP		CAA	
	1998	**1997**	**1998**	**1997**
	FIM thousand	FIM thousand	FIM thousand	FIM thousand
Intangible rights				
Acquisition costs 1.1.	21 429	18 510	19 109	16 190
+ Increase during financial year	5 122	2 919	3 925	2 919
- Decrease during financial year	-686	0	-686	0
Acquisition costs 31.12.	25 865	21 429	22 349	19 109
- Accrued planned depreciation 31.12.	-14 127	-12 949	-14 127	-12 949
Book value 31.12.	11 738	8 480	8 221	6 160
Other long term expenditure				
Acquisition cost 1.1.	5 775	5 775	5 775	5 775
+ Increase during financial year	0	0	0	0
- Decrease during financial year	0	0	0	0
Acquisition cost 31.12.	5 775	5 775	5 775	5 775
- Accrued planned depreciation 31.12.	-5 550	-5 351	-5 550	-5 351
Book value 31.12.	225	424	225	424
Land and water areas				
Acquisition cost 1.1.	221 229	211 799	221 229	211 799
+ Increase during financial year	2 422	9 556	2 422	9 556
- Decrease during financial year	-2	-126	-2	-126
Acquisition cost 31.12.	223 649	221 229	223 649	221 229
Buildings and structures				
Acquisition cost 1.1.	1 526 943	1 488 274	1 396 338	1 357 706
+ Increase during financial year	49 038	38 668	48 920	38 631
- Decrease during financial year	-19 874	0	-19 874	0
Acquisition cost 31.12.	1 556 106	1 526 943	1 425 384	1 396 338
- Accrued planned depreciation 31.12.	-382 780	-325 291	-368 205	-314 152
Book value 31.12.	1 173 327	1 201 652	1 057 179	1 082 186
Accrued difference between total and planned depreciations 31.12	18 808	11 700	18 808	11 700
Machinery and equipment				
Acquisition cost 1.1.	1 097 672	1 004 525	1 082 206	989 820
+ Increase during financial year	132 916	99 767	132 057	98 924
- Decrease during financial year	-39 414	-6 620	-39 278	-6 538
Acquisition cost 31.12	1 191 174	1 097 672	1 174 985	1 082 206
- Accrued planned depreciation 31.12.	-770 833	-702 455	-761 000	-694 541
Book value 31.12.	420 341	395 217	413 985	387 665
Accrued difference between total and planned depreciations 31.12	681	91	500	0
Earth structures				
Acquisition cost 1.1.	1 106 939	1 094 410	1 106 253	1 093 724
+ Increase during financial year	34 073	17 271	34 073	17 271
- Decrease during financial year	-1 099	-4 743	-1 099	-4 743
Acquisition cost 31.12.	1 139 912	1 106 939	1 139 226	1 106 253
- Accrued planned depreciation 31.12.	-550 021	-490 469	-549 840	-490 330
Book value 31.12.	589 891	616 469	589 386	615 923

Notes on the financial statements

	GROUP		CAA	
	1998	**1997**	**1998**	**1997**
	FIM thousand	FIM thousand	FIM thousand	FIM thousand
Stocks and shares				
Acquisition cost 1.1.	898	815	34 080	28 360
+ Increase during financial year	1 245	82	2 051	5 720
- Decrease during financial year	0	0	0	0
Acquisition cost 31.12.	2 143	898	36 132	34 080
TOTAL				
Acquisition cost 1.1.	3 980 885	3 824 109	3 864 990	3 703 376
+ Increase during financial year	224 815	168 264	223 449	173 021
- Decrease during financial year	-61 076	-11 488	-60 939	-11 406
Acquisition cost 31.12.	4 144 624	3 980 885	4 027 500	3 864 990
- Accrued planned depreciations 31.12	-1 723 312	-1 536 515	-1 698 723	-1 517 323
Book value 31.12.	2 421 312	2 444 370	2 328 776	2 347 668
Accrued difference between total and planned depreciations 31.12	19 489		19 308	
Total depreciation on fixed assets, FIM thousand				
- budgeted depreciations			220 789	216 550
- further depreciations			14 712	2 171
- on work in progress			4 118	22 940
Total CAA budgeted depreciations 1998 and 1997			239 619	241 661
6. Stocks and shares 31.12.1998, FIM thousand	Book value		Book value	
Telephone co. shares	183	183	183	183
Stocks and shares	1 934	689	1 733	686
Other Stocks and shares	25	25	25	25
Subsidiary shares:				
Kiinteistö Oyj Lentäjäntie 1			22 145	22 145
Suomen Lentoasemapalvelut Oy			400	400
Kiinteistö Oy Turun Lentorahti			5 000	5 000
Kiinteistö Oyj Lentäjäntie 3			5 646	5 641
Lentoasemakiinteistöt Oyj			1 000	
Total Stocks and shares	2 143	898	36 132	34 080

7. CAA Group companies

	Profit	
	1998	**1997**
	FIM thousand	FIM thousand
Kiinteistö Oyj Lentäjäntie 1	298	2 399
Suomen Lentoasemapalvelut Oy	533	147
Kiinteistö Oy Turun Lentorahti	-4	-250
Kiinteistö Oyj Lentäjäntie 3	-1 678	-216
Lentoasemakiinteistöt Oyj (founded 14.12.1998)		

Other company share holdings

Nurminen Airport Services Oy

Number of shares	Group's holding in per cent	Book value	Group's capital holding	Profit for financial year
	%	FIM thousand	FIM thousand	FIM thousand
75	25	150	201	205

Notes on the financial statements

	GROUP		CAA	
	1998	**1997**	**1998**	**1997**
	FIM thousand	FIM thousand	FIM thousand	FIM thousand
8. Additions and reductions in captial items				
Restricted shareholders' equity				
At beginning of financial year	1 097 236	1 097 236	1 097 236	1 097 236
+ addition / reduction	0	0	0	0
At end of financial year	1 097 236	1 097 236	1 097 236	1 097 236
Non-restricted shareholder equity				
At beginning of financial year	1 262 131	1 262 131	1 262 131	1 262 131
Profit/loss from previous financial year	203 539	135 605	215 016	146 744
Shareholder dividend	-21 982	-5 000	-21 982	-5 000
Profit (+) loss (-) for financial year	94 667	72 935	95 588	73 272
At end of financial year	1 538 356	1 465 670	1 550 754	1 477 147
Total capital	2 635 592	2 562 906	2 647 990	2 574 383
9. Provisions				
Accumulated depreciation difference	19 489	11 791	19 308	11 700
Compulsory Provisions	2 160		2 160	
The compulsory provisions for 1998 are for the creation of a Year 2000-proof data system				
10. Funds allocated from the national budget				
Funding received against performance				
Air Force fees			57 188	56 944
Fees from Frontier Guard			450	530
Fees from Meteorological Institute			1 293	1 778
For maintenance of rescue services			2 294	6 914
For basic training of staff			6 039	6 037
			67 263	72 203
Unearned income				
For investment projects			25 017	28 352
Assistance received for operations			14 942	15 976
			0	0
			39 959	44 328
11. Staff paid out of state funds				
Number of staff			79	99
Wages and bonuses			7 861	7 862
12. Funding from local authorities				
Unearned income				
For investment projects			9 850	10 583
13. Funding from the EU				
Unearned income				
For investment projects			203	3 287

Notes on the financial statements

	GROUP 1998 FIM thousand	GROUP 1997 FIM thousand	CAA 1998 FIM thousand	CAA 1997 FIM thousand
14. Guarantees, pledges and liabilities				
Guarantees on behalf of Group companies:				
Kiinteistö Oyj Lentäjäntie 1	115 000	115 000	115 000	115 000
Kiinteistö Oyj Lentäjäntie 3	85 000	65 000	85 000	65 000
Pledges on own behalf:				
Kiinteistö Oy Turun Lentorahti	15 000	15 000		
Leasing liabilities				
To be paid during 1999/98 financial year	648	347	278	347
To be paid later	804	324	188	324
Total guarantees, pledges and liabilities.	216 452	195 671	200 466	180 671

15.Financial result for Flight Safety Authority regulatory functions 1998

Turnover for regulatory functions is derived from fees for the granting and renewal of various kinds of licences, for training licences for various training organizations and for operating licences for commercial aviation and maintenance companies. Charges are also made for the upkeep of the registry of aircraft.

The number of persons employed by the regulatory body at the end of the financial year was 64 (60).

Income statement Mmk	**1998** Mmk	**1997**
Turnover	4,5	4,1
Personnel costs	16,0	15,8
Other costs	4,4	2,1
General costs		
office costs	3,1	3,0
air survey costs	2,8	2,7
data services	0,3	0,3
postage	0,3	0,3
General costs, total	6,4	6,3
Operating costs, total	26,8	24,2
Operating surplus/deficit	-22,3	-20,1
Depreciations	0,6	0,6
Result for financial year (deficit)	-22,9	-20,7

Changes to balance sheet capital items	**1998** FIM thousand	**1997** FIM thousand
Intangible rights		
Acquisition cost 1.1.	624	594
Additions / Investments -98	1 811	30
Acquisition cost 31.12.	2 435	624
- Accrued planned depreciation 31.12.	-736	-516
Book value 31.12.	1 699	108
Tangibles		
Acquisition cost 1.1.	7 986	7 528
Additions/ Investments - 98	184	458
Acquisition cost 31.12.	8 170	7 986
- Accrued planned depreciation 31.12.	-6 601	-6 215
Book value 31.12.	1 569	1 771

Notes on the financial statements

16. The CAA in the government budget 1998

The profit target for the financial year as laid down in the state budget was FIM 60 million. The actual profit for the 1998 financial year was FIM 95.6 million.

The CAA was granted the authority to borrow FIM 250 million. An absolute guarantee was granted to Kiinteistöyhtiö Oy Lentäjäntie 3 to the sum of FIM 85 million.

FIM 463.1 million was spent on investments during the financial year, whereas the budget estimated expenditure of FIM 488 million, assuming that the profit target was fulfilled. The CAA was authorized to make investment related borrowing commitments totalling FIM 600 million.

Key figures

	CAA			
	1996 actual	1997 actual	1998 Budgeted	1998 actual
Turnover, FIM million	840,0	971,4	889,0	1 080,7
- change-%	11,4	15,6	-8,5	11,3
Operating profit, FIM million	274,8	310,9	277,0	340,7
-profit as % of turnover	32,7	32,0	31,2	31,5
Profit, FIM million	43,8	73,2	44,0	95,6
-profit as % of turnover	5,2	7,5	4,9	8,8
Return on invested capital % 1)	1,6	2,5	1,9	3,2
Solvency ratio % 2)	84,8	85,2	80,5	80,8
Investments as % of turnover	34,9	25,9	54,8	42,0
Number of personnel	1 629	1 670	1 629	1 720

Formulae:
1) Net profit - income on financing + financing costs / invested capital (balance sheet total - interest free debt)
2) Own capital + reserves / balance sheet total

17. CAA electricity grid operations

Itemised statement for electricity grid and sales as required by the Electricity Act (386/1995).

Principles for dividing joint cost and balance sheet items

Other costs

A proportion of Helsinki-Vantaa airport's general costs has been allocated for the electricity grid distribution operations of its power plant to cover running costs. In addition a proportion of CAA GROUP/Head Office expenses has been allocated for electricity supply operations in regard to airport running costs.

Financing income and expenses

Self sufficiency in funding during 1996 –1998 has resulted in a positive result for electricity grid operations.

Notes on the financial statements

Changes in balance sheet items (during financial year 1998)

The balance sheet, opened in 1996 with the start-up of electricity grid operations, consisted of fixed assets for carrying out such operations (equipment and buildings). Under balance sheet liabilities, assets have been divided into basic equity capital and other opening phase capital.

		1998 FIM thousand	1997 FIM thousand
Buildings and structures	Acquisition cost 1.1.	641	641
	Increase during financial year	0	0
	Acquisition cost 31.12.	641	641
	- Accrued planned depreciations 31.12.	-582	-523
	Book value 31.12.	59	118
Machinery and equipment	Acquisition cost 1.1.	47 761	45 059
	Increase during financial year	3 019	2 702
	Acquisition cost 31.12.	50 780	47 761
	- Accrued planned depreciations 31.12.	-35 273	-32 95
	Book value 31.12.	15 507	14 811
Investment projects in progress	Machinery and equipment	550	

Other receivables

Financial receivables from the CAA during the financial year.

Short term equity capital

Accounts payable relate to purchases for grid operations.
Transition payables include obligatory staff holiday pay provisions and occasional performance related bonuses.

Staff

During the financial year an average of 9 persons were employed on electricity grid operations.

Notes on the financial statements

Income statements	POWER PLANT			
	GRID OPERATIONS		SALES OPERATIONS	
	1998 FIM thousand	**1997** FIM thousand	**1998** FIM thousand	**1997** FIM thousand
TURNOVER	10 235	9 277	16 721	16 268
Other revenue on business operations				
EXPENSES				
Materials and supplies				
Purchases during financial year	279	340	4	27
External services	3 187	3 031	15 298	15 721
Staff costs	2 041	1 806	274	259
Rents	1 011	607	27	26
Other expenses	995	746	58	50
TOTAL EXPENSES	7 513	6 530	15 661	16 083
OPERATING PROFIT	2 722	2 747	1 060	185
DEPRECIATIONS				
Buildings and structures	59	59		
Machinery and equipment	2 323	2 396		
TOTAL DEPRECIATION	2 382	2 455		
OPERATING PROFIT	340	292	1 060	185
INCOME AND EXPENSES ON FINANCIAL ITEMS				
Interest income		13		
Other financing costs	-20			
TOTAL	-20	13		
PROFIT BEFORE INCIDENTAL ITEMS, PROVISIONS AND TAXES	320	305	1 060	185
PROFIT BEFORE PROVISIONS AND TAXES	320	305	1 060	185
PROFIT FOR FINANCIAL YEAR	320	305	1 060	185

Notes on the financial statements

	POWER PLANT Grid Operations	
Balance Sheet	**1998** FIM thousand	**1997** FIM thousand
ASSETS		
FIXED ASSETS AND OTHER LONG TERM INVESTMENTS		
Tangible assets		
Buildings and structures	59	118
Machinery and equipment	15 507	14 811
Work in progress	550	
	15 566	14 929
CURRENT AND FINANCING RECEIVABLES		
Receivable		
Accounts receivable	782	795
Receivable carried forward	144	0
Other receivables	305	219
	1 231	1 014
TOTAL ASSETS	17 347	15 943
LIABILITIES		
OWN EQUITY		
Basic equity capital	7 800	7 800
Other capital at start-up phase	5200	5200
Profit/loss from previous financial years	1 935	1 630
Profit/loss for financial year	320	305
	15 255	14 934
PROVISIONS		
CURRENT LIABILITIES		
Short term		
Accounts payable	1 419	580
Accounts payable	673	429
	2 092	1 009
TOTAL LIABILITIES	17 347	15 943

Return on investment %
Return on invested capital for electrical grid operations was 2.2 % (2.0%)

Formula:

$$\frac{100 * (\text{profit before incidental items + interests and other financial costs})}{\text{invested capital}}$$

Proposal on the use of profit

The Board proposes that the Council of State approve the Closing of the Accounts for 1998 and that the profit for the financial year of FIM 95 588 490 be assigned as profit of FIM 28 500 000 to the state and that the balance of FIM 67 088 490 be entered into the profit and loss account for previous financial years.

Vantaa, March 18th, 1999

Mikko Talvitie

Pekka Hurtola
Mona Björklund
Seppo Simola
Matti Puhakka
Tuulikki Petäjäniemi

The foregoing Financial Statement has been drawn up in accordance with good accounting practice. An auditors' report on the accounts has been issued today.

Vantaa,
March 23rd,
1999

Seppo Akselinmäki, JHTT
Markku Pajunen, KHT

Auditors' report

We have examined the Balance Sheet, accounts, administrative practices and finances of the Civil Aviation Administration for the financial year 1st January to 31st December 1998. The Balance Sheet drawn up by the Board and managing director contains income statements, balance sheets and appendices to the accounts for the Civil Aviation Administration Group.

The audit has been carried out as thoroughly as good auditing practice requires.

The bookkeeping and financial statement principles, contents and method of presentation have been examined and it is affirmed that the closing of the books contains no essential flaws or deficiencies. An audit of the management has confirmed that the members of the Board and the managing director have acted legally within the State Enterprises Act and the Civil Aviation Act.

The management of the Civil Aviation Administration has been organised properly. The bookkeeping has been arranged and conducted in accordance with the regulations and good accounting practice.

The closing of the accounts has been drawn up in compliance with prevailing regulations and good accounting practice. The closing of the accounts and the financial statement for the CAA Group with the appended annual report to the Council of State provide an accurate account of both the Civil Aviation Administration's finances and the achievement of the targets set for it by Parliament and the Council of State.

In accordance with the Electricity Marketing Act we have examined the income statements, balance sheet appended information for these activities as itemised separately

We hereby declare that in all essentials the accounts have been drawn up correctly in accordance with the Electricity Market Act and the rules and provisions of that Act.

We recommend that the financial statement and the financial statement for the CAA Group be confirmed and that the proposal by the Board in its Annual Report for the management of the profit for the financial year be accepted.

Vantaa, March 23rd, 1999

Seppo Akselinmäki, JHTT
Markku Pajunen, KHT

Flight Safety Administration

The Flight Safety Administration is the official body of the CAA charged with overseeing the safety of air traffic and other aviation related activities as well as airports and air navigation services. The FSA issues aviation regulations, approves aviation equipment, maintains aircraft registers and endorses aircraft mortgages. Its official duties also include the issuing of various permits and licences and the supervision of permit and licence holders themselves. In matters relating to its area of responsibility, the FSA has complete authority, independent of the self financing institution of the CAA itself. Its clients are aviation companies and aviators and the self financing section of the CAA.

The primary duty of the Flight Safety Administration is to ensure that aviation safety in Finland is of a high international standard. Its goal is to see a constant decline in the annual rate of aircraft accidents and deaths caused by such accidents despite the increase in air traffic. In all its activities, the FSA places great importance on good customer service, consistent treatment of customers and the efficiency and economy of its activities. The total expenditure of this official body for 1998 amounted to FIM 26.8 million and income FIM 4.5 million.

International official cooperation

A joint air safety authority for Europe

As air traffic increases and becomes ever more international in nature, so too do official functions require increasing international and European cooperation. Numerous Joint Aviation Requirements (JAR) have already come about as a result of European cooperation among European aviation officials through JAA, the Joint Aviation Authorities, concerning airworthiness, maintenance and operational requirements for aviation.

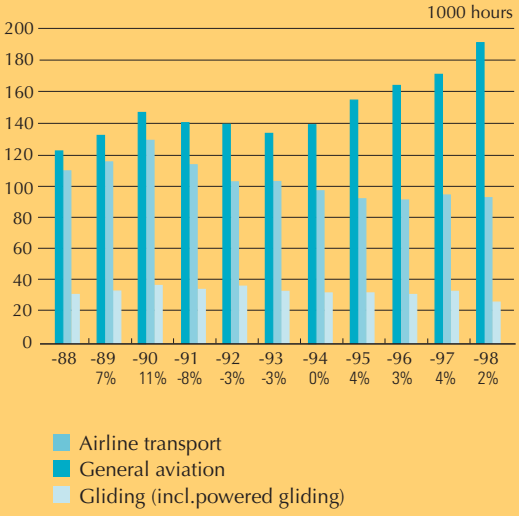
In the future the loose cooperation model characterized by the JAA type of organization will no longer be able to respond to increasing international demands. For this reason the European Union is preparing to set up a joint European Aviation Safety Authority (EASA) on the foundations laid by the JAA. The intention is for other European countries also to join EASA because the aim is to create a high level, uniform safety framework throughout Europe. In fact in June 1998, the Council granted the European Commission authority to begin negotiations on the creation of a general EASA agreement with non-member countries of the JAA agreement. An expert committee of representatives from the member states assisted the Commission in these negotiations.

European cooperation on air navigation

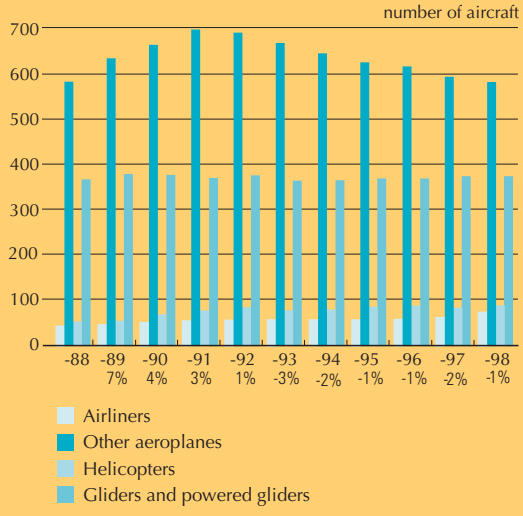
In 1998 a special Safety Regulations Commission (SRC) was set up by Eurocontrol, the European air traffic control organization, for the purpose of developing and coordinating official functions and norm recommendations for the air navigation sector. Flight safety officials from various countries are represented on the SRC, which has a separate organ called the Safety Regulations Unit, which prepares decisions and puts them into effect. Until now the air navigation industry in Europe has been regulated by the various official norms in a very general way, with operations usually following the norms of the International Civil Aviation Organization (ICAO), in this case Annex 11 and the instructions drawn up on the basis of it.

The Flight Safety Administration participates actively in the work of the SRC, and it will have even more opportunity to do so with Finland's membership of Eurocontrol. Active participation in the SRC provides access to extensive resources which can be useful in the search for a common official European policy on many of the central issues relating to air navigation safety.

FLIGHT HOURS 1988-1998, AIRCRAFT REGISTERED IN FINLAND



AIRCRAFT REGISTERED IN FINLAND 1988–1998



Adoption of new aviation norms in Finland

Joint European aviation requirements for heavy air traffic

Aviation regulations in Finland too are increasingly conforming to the joint European JAR requirements. They are prepared by the joint European association of aviation officials, JAA, and applied in each country in accordance with its existing legislation. They are being phased in Finland during a transitional period. Regulations are also being introduced within the European Union through EU directives, but to a slower timetable because of the necessary time it takes for this process. The European Union has made it its goal to raise aircraft safety and the regulations governing aviation practice to a higher level than ever before achieved within the Union, on the foundation of the JAA requirements.

In April 1998 the JAR-OPS 1 requirements governing certification of operators of so-called heavy commercial aviation came into force. The drafting, revision and approval of operating manuals for licensing and approval procedures required prodigious effort from both the airlines and the Flight Safety Administration. The result was that four operators, Finnair Oyj, Airbotnia Oy, Jetflite Oy and Lillbacka Jet Oy were granted a JAR-OPS 1 Air Operators Certificate (AOC).

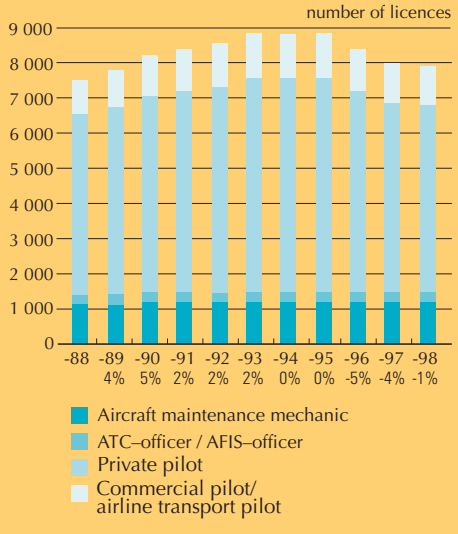
Preparations for the introduction of the JAR-OPS requirements were also carried out during the year. These will come into force for commercial passenger and cargo helicopter transport in August 1999 and for light aircraft in October 1999.

Overhaul of the practical and theoretical pilots' licence test system

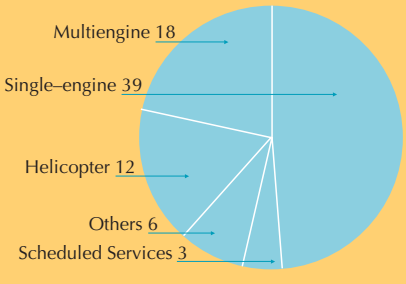
The flying and theory test system for new pilots' licences and renewals was overhauled at European level during the financial year. According to research carried out by the EU Commission, Finland's previous training, testing and licence requirements system differed from other member states in that the theoretical tests at the end of the flying courses were held entirely under the responsibility of the flying school rather than the aviation authorities. In addition the tests held by some flying schools were regarded as too easy.

Since the beginning of June 1998 the Flight Safety Administration has organized uniform theoretical tests for all applicants. Judged by the results of the first

FINNISH AVIATION LICENCES
1988–1998



AIR OPERATOR CERTIFICATES
31 DEC,1998



60 air operator certificate holders

six months, 75 per cent of flying school students performed the various test requirements acceptably at the first attempt. At the same time, inspection flight practice was overhauled to correspond more closely with the coming joint European requirements.

The joint European JAR-FCL (Flight Crew Licensing) requirements governing flying training, pilots' licences and related medical fitness requirements will come into force during 1999. The updated test and inspection flight system will make it significantly easier to adopt the new requirements.

Flight safety in 1998

Accidents and damage

The past year has been a good one for Finnish air safety. Despite the growth in air traffic there was no increase in the number of aviation accidents or damage. There were no accidents involving commercial flights. There were two accidents involving private aircraft and 12 cases of flight damage but fatalities were avoided.

No hang-gliding, paragliding or parachute jumping accident resulting in death occurred. The only fatal accident during the year involved an ultra-light aircraft, which fell into a lake and sank during a training flight. There were two accidents and seven cases of damage involving gliders and powered aircraft. Two people were seriously injured in these cases. No accidents involving hot air balloons occurred.

Reporting of hazardous and anomalous situations

Hazardous and anomalous situation research provides information on possible risks and trends in their development. This research is based on a comprehensive reporting system which is constantly under development. During 1998 more than five hundred dangerous or anomalous incidents involving commercial or private aviation were reported to the Flight Safety Administration. The total number of cases remained the same as during the previous year. However, the number in itself does not provide an accurate picture of aviation safety — a classification of seriousness is necessary for this.

During the review year the Flight Safety Administration adopted a new and more precise classification system for assessing the seriousness of various incidents. On the basis of this, about nine per cent of reported incidents were classed as flying accidents, aircraft damage or serious hazard situations. Accidents and serious hazard situations are investigated by the Accident Investigation Centre at the Ministry of Justice. The Flight Safety Administration is responsible for investigating other incidents.